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EMPACT Local Urban Environmental Issues Study of 86 Metropolitan Areas

EMPACT

Environmental Monitoring for Public Access
& Community Tracking

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Executive Summary

EMPACT is an interagency Presidential Initiative charged with providing 86 of the nation's largest Metropolitan Statistical Areas (MSA) with the capacity to monitor local environmental parameters of greatest interest to their citizens, and helping these communities make this information readily available and understandable. Pursuant to this charge, EMPACT developed a survey to identify local environmental issues of greatest concern to citizens in each of the 86 EMPACT metropolitan areas. The survey was developed with input from key EPA staff and Federal stakeholdcrs; then thoroughly reviewed by professionals in EPA, other Federal agencies, academia, and the private sector. The survey was conducted in March and April of 1999 using Computer-Assisted Telephone Interviewing (CATI). At least 100 respondents were sampled from each MSA, for a total of 8,777 Interviews. All citizens with telephone service in the 86 EMPACT MSA's had an equal probability of being interviewed.

The areas surveyed include only the 86 EMPACT MSAs. Other MSAs, smaller communities and rural areas were excluded. Therefore, the results do not reflect national opinion, but are a good indicator of opinion among residents of metropolitan areas. Over 81% of the residents living in a metropolitan statistical area, live in one of the EMPACT MSAs.

Summary of Findings

The following are key findings from the analysis of the EMPACT survey data:

- ***Citizens consider environmental issues at least as important as non-environmental issues, and in many cases, more important to their local area.*** While public education was considered the most important local issue (8.6*), the quality of drinking water was second (8.5), followed by the adequacy of the long-term water supply (8.5), the pollution of streams and lakes (8.4), and the protection of groundwater and wells (8.3).

- ***Water issues are the most important local environmental issues to citizens.*** The top five most important local environmental issues relate to water: the quality of drinking water (8.5); the long-term water supply (8.5); the pollution of streams, rivers, and lakes (8.4); the protection of groundwater and wells (8.3); and the adequacy of sewage treatment facilities (8.1).

- ***Citizens cited air pollution from cars as becoming worse, more so than any other local environmental*** issue. Nearly half of citizens (42%) indicated that air pollution from cars has become worse during the last five years. This is followed by the pollution of streams, rivers, and lakes (34%**), the depletion of the water table (33%), the adequacy of landfills (30%), and community ozone alerts (25%).

Executive Summary

- ***There are significant differences in local environmental concerns among the MSA's in different EPA Regions.*** The most notable differences are between EMPACT MSA's in Region's 1 and 10. Citizens living in Region 1 EMPACT MSA's are more likely to report that local environmental conditions are improving; whereas, citizens in Region 10 EMPACT MSA's are more likely to report that the local environmental issues of greatest concern to them are becoming worse.

- ***There are significant differences in local environmental concerns among MSA's.*** Citizens in individual MSA's report differences in the range of issues they perceive as becoming better or worse. For example, citizens in Phoenix-Mesa, Arizona indicate that water table depletion has become worse (60%). Similarly, citizens in Las Vegas, Nevada, are very likely to report that air pollution from cars has become worse (78%).

- ***There are significant differences in local environmental concerns among demographic*** groups. The perception that local environmental issues were getting worse, or better, differed by demographic groups. More so than other segments of the population in the study, citizens with higher education and household income perceive that landfill issues (location and adequacy of landfills) and water table issues (protection of groundwater and depletion of the aquifer) are becoming worse. In contrast, lower income groups perceive that air pollution (from both cars and industry) and local waste dumping are becoming worse.

- ***Citizens consider television and newspapers the best sources for information about local environmental issues.*** Citizens predominantly obtain information about local environmental issues from newspapers and television. Similarly, citizens also report that the quality of local environmental information is best from television (25% "excellent", 45% "good") and newspapers (27% "excellent", 48% "good"). Citizens report that governmental agencies are not quality sources of information about local environmental issues. At least 50% of the respondents give "fair" or "poor" ratings for each of federal, state, and local agencies..

* Respondents were asked to indicate how important each of 29 issues was in their community using a scale of 1 to 10 with 10 being "extremely important" and 1 being "not important at all." "Importance" ratings referenced in the Executive Summary are means.

** For each environmental issue that a respondent rated 6 or greater in importance, the respondent was asked:
"For (INSERT ISSUE) would you say it has gotten better, worse, or stayed the same in the last five years in the (INSERT NAME OF MSA) area?

Chapter I

Introduction

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Chapter I. Introduction

I. Purpose

EMPACT is an interagency Presidential Initiative charged with providing 86 of the nation's largest Metropolitan Statistical Areas (MSA) with the capacity to monitor local environmental parameters of greatest interest to their citizens, and helping these communities make this information readily available and understandable. (Appendix A contains an alphabetical listing of the 86 EMPACT MSAs and a listing of EMPACT MSAs by EPA Region). To meet this charge, EMPACT is a "customer-driven" program that attempts to meet the needs and preferences of its customers; the 86 designated EMPACT MSA's and their residents. In order to insure that EMPACT funded research and grants focus on the local environmental parameters of greatest interest to citizens, information about the local environmental issues of greatest concern to the citizens in each of the 86 EMPACT MSA's was critical. Therefore, EMPACT developed a survey to identify local environmental issues of greatest concern to citizens in each of the 86 EMPACT MSA's. This information will be used by EMPACT to direct resource allocations and evaluate research proposals and the program's portfolio of initiatives. The information from the survey will also be provided to EMPACT projects and federal partners to support their work in providing citizens with easily accessible, understandable, time-relevant information about environmental conditions in their communities.

II. Previous Research

EMPACT and its contractor conducted searches of all relevant electronic data bases (e.g.. Roper *Polls* and the University of North Carolina *State* Polls), reviewed related literature, consulted with experts in the areas of environmental and survey research, and maintained continuing communications with other EPA organizations and Federal1 agencies with related missions. These efforts identified no previous. current, or planned efforts to conduct a national survey of urban residents' concerns with local environmental issues.

The most relevant surveys identified were conducted by State polls and academic polling organizations. However, these polls queried environmental issues on the national, regional and state levels. The identified state level studies, queried respondents about environmental issues in their state ofresidence. Thus, the environmental issues queried focused on a broader geographic area than the respondent's area of residence and the sample included non urban residents. Many of the polls conducted on the regional and state levels were over twenty years old. Only one metropolitan poll in Las Vegas, Nevada included questions about local urban environmental issues at the community level.

Survey questions that query abroad sample of citizens (i.e., urban, small town, and rural residents) about the importance of environmental issues at a national, regional or state level may be of little use in identifying local environmental issues of greatest importance to residents of a specific metropolitan area. First, when queried about environmental issues in general or at the national and regional levels, respondents frequently focus on broad issues, such as ozone depletion. Second, residents of metropolitan areas, small towns, and rural areas are likely to be concerned about very

different focal environmental issues in their communities. Lastly, even if a national or state level survey were to ask respondents from urban areas about environmental concerns in their city of residence, the aggregate results would be of little use because of likely variation in local issues across cities.

It is the EMPACT Program's anecdotal experience that many MSA's have unique environmental issues or place a unique emphasis on particular local environmental issues. However, there are no comprehensive, scientifically valid information sources on which to validate these observations across the 86 EMPACT MSA's.

III. Unique Features of the Survey

The EMPACT Local Urban Environmental Issues Study of 86 Metropolitan Areas was undertaken to support the EMPACT program. Therefore, the inquiry and sample were restricted. The primary focus was upon the importance of local issues in the respondent's community. Additional areas of inquiry were also restricted to questions about the urban area in which the respondent resided. Therefore, survey results do not reflect national opinion, in that residents of smaller MSA's and rural areas were not included in the survey.

The Metropolitan Statistical Areas surveyed include only the designated 86 EMPACT MSA's. EMPACT MSA's were identified programmatically to insure inclusion of the 75 largest U.S. MSA's and inclusion of an additional ten MSA's to insure participation by all fifty states. These MSA's are not a statistical sample of all U.S. MSAs.

Chapter II

Methods

Chapter II. Methods

I. Survey Development and Peer Review

The survey design and questionnaire were peer reviewed by four outside peer reviewers and one EPA statistician. EMPACT and its contractor, Macro International, consulted with a broad range of experts and professionals including staff within EPA and other Federal agencies, outside academics, survey practitioners, and key stakeholders. Throughout the survey development process, their feedback was used to refine the survey structure and content, revise the questionnaire, develop the survey methodology and sampling plan, and create the analysis plan.

II. Survey Instrument

The survey instrument contained 66 questions divided into four sections:

- Local environmental concerns
- Non-environmental concerns
- Communications issues
- Respondent demographics

The survey instrument will help the EMPACT Program and EMPACT Projects more clearly understand citizens':

- ***Local environmental*** concerns: The instrument captures respondent perceptions of predominant local environmental issues in their communities. It is important to note that the EMPACT survey asked citizens to identify and describe the importance of *local* environmental issues. These opinions may differ from scientific and technical assessments of environmental conditions in these metropolitan areas.

- ***Context for prioritizing local environmental concerns:*** This allows EMPACT to compare perceptions of local environmental concerns versus other non-environmental concerns (e.g., local crime rate, quality of public education, availability of public transportation). These responses provide insight into the importance citizens place on a broad range of issues facing their communities. Many of the non-environmental concerns are tangentially related to broad environmental issues such as urban sprawl.

- ***Sources of local environmental information:*** EMPACT will be able to identify how citizens typically obtain information (active and passive information acquisition) about local environmental issues and how they rate the quality of the local information provided by various sources. This provides EMPACT Projects with additional information about their customers' opinions and preferences regarding providers of information about local environmental conditions and issues.

A copy of the survey instrument is attached as Appendix B

III. Survey Methods

The survey was conducted in March and April of 1999. Macro completed at least 100 interviews for each of the 86 EMPACT metropolitan statistical areas (MSAs), for a total of 8777 interviews (Designated EMPACT Metro Areas are listed in Appendix A.) This sampling methodology balanced two competing demands--ensuring valid sample sizes for each city while also using maintaining cost efficiency. As a result, the study was able to achieve sound statistical precision:

- For all 86 MSAs combined, the sampling error is ±1.05% at a 95% confidence level
- For each individual MSA, the sampling error is ±9.80 at a 95% confidence level

This signifies that, with 95% certainty, the mean percentage response to any question using the statistical sample is within the designated sampling error of the true percentage in the sampled population. For example, if 60.00% of the respondents in all MSAs respond "Yes" to a question, the true value in the population is between 58.95% and 61.05% with 95% certainty.

For analysis purposes, data at the national and regional levels have been weighted to recent population estimates (U.S. Census Bureau, July 1997 estimates) to accurately reflect the nation or region as a whole. For example, it would be inaccurate to equally represent 100 Cheyenne MSA respondents and 100 Los Angeles-Riverside-Orange County MSA respondents at a national level, since the Los Angeles-Riverside-Orange County MSA respondents represent a much larger population.

IV. Data Collection Methods

Macro collected the survey data using a computer-assisted telephone interviewing (CATI) system. The CATI system allows for efficient collection of data while maintaining rigorous quality control (e.g., built-in skip patterns, instant identification of out-of-range responses). However, inherent in any telephone survey of the general population, minima? bias exist due to a small percentage of households (less than 3%) that do not have telephone service, and are therefore ineligible to be chosen for this study.

Before fielding the survey, Macro programmed the survey into the CATI system and performed rigorous testing to ensure that survey functioned as designed. Once the CATI programming was completed, Macro comprehensively trained the in-house interviewers to familiarize them with the survey methodology and to provide them with background information about the EMPACT. Experienced supervisors at the data collection site provided continuous oversight throughout the survey fielding process. Interviewers were randomly remotely monitored to ensure interviewer competence and data accuracy. EMPACT staff and Agency Steering Committee members were also able to remotely monitor interviewers throughout the data collection.

After Macro completed the data collection, Macro programmers performed a series of validity checks to ensure the integrity of the database. Once it had been determined that the data was clean and reliable, Macro began the process of analyzing the data.

V. Quality Control Procedures

Table 1 Quality Control Procedures details the quality control procedures used in the data collection process.

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Survey step	Quality Control Procedures
CAT1 Programming	▪ The programmed survey was compared to the paper version by three project staff not involved in the programming to identify any programming errors . The CATI system guarantees that out-of-range responses can not be recorded (error message immediately appears) and that skip patterns are followed correctly
Interviewer Training	▪ Macro used only experienced trained interviewers who have been certified to **interview** on the EMPACT study by completing project training ▪ Interviewers were required to practice on two supervisor-monitored interviews before being certified for the project.
Interviewing	▪ Supervisors randomly monitored 20% of interviews. If the interviewer were to vary from the written protocol or introduces improper queries, the interviewer is taken off-line for additional training. ▪ Supervisors reviewed daily production reports that detail disposition of all survey records. ▪ EMPACT staff and Steering Committee remotely access interviews.
Database Development	▪ Programmers and analysts continually download data to verify inconsistencies do not occur ▪ Programming supervisor randomly verifies 5% of survey records

VI. Analysis

In this report, survey results are provided at three levels:

· ***National urban results.*** The report discusses results for the combined 86 EMPACT MSAs to gauge the overall importance of local urban environmental concerns, the overall perceptions of local environmental trends, and sources of local urban environmental information. These results have been analyzed demographically where appropriate. A national-level profile of survey results is attached as Appendix C.

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- *Regional urban results.* In addition to the national-level results, the report also includes information about local urban environmental issues delineated by EMPACT MSAs located in each of the 10 EPA regions. The report will address the differences and similarities of findings among the regions. Profiles for each of the EPA regions arc attached as Appendix D.

- *MSA results* The report will illustrate the differences in local environmental concerns among EMPACT MSAs In this report, the discussion will be limited to four MSAs Profiles for these MSAs are attached in Appendix E.

Results at the *national urban* and *regional urban* levels have been weighted to reflect the population in each MSA based on July 1998 population estimates from the U.S. Census Bureau. Therefore, highly populated MSAs will be more highly represented in the regional and national results, allowing for a more accurate data analysis and presentation of results.

It is important to note that *national urban* and *regional urban* level results are not intended to reflect the entire population of the United States as a whole, Rather, the results reflect thd Population of respondents in the 86 EMPACT MSAs included in this study. Generalizations can be made to residents of U.S MSA's Eighty-one percent (81 .1%) of the U.S. population living in a metropolitan statistical area lives in on of the EMPACT MSAs Within the 10 EPA Regions, the proportion of MSA residents living in an EMPACT MSA ranges from nearly 64% to 96%. Table 2 EMPACT Proportion of Total MSA Population by EPA Region shows the number and percentage of all MSA residents living in EMPACT MSAs by EPA Region and the nation. While generalizations can be made about residents of MSAs; the results should not be interpreted as representative of other populations, such as residents of small communities and rural areas.

Table 2. EMPACT Proportion of Total MSA population by EPA Region

Region	Population in EMPACT MSAs	Total Pop In MSAs	EMPACT Proportion of MSA Population
1	7,643,707	11,217,000	68.1%
2	25,932,689	27,069,000	95.8%
3	20,104,526	22,027,000	91.3%
4	22,438,645	35,229,000	63.7%
5	29,818,343	37,860,000	78.8%
6	16,358,359	23,541,000	69.5%
7	5,433,244	7,180,000	75.7%
8	4,022,173	5,624,000	71.5%
9	33,993,469	36,933,000	92.0%
10	6,022,278	7,526,000	80.0%
Total	171,767,432	211,785,000	81.1%

Chapter III

Local urban Environmental Issues

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Chapter III Local Urban Environmental Issues

I. Environmental Issues

Respondents were asked to rate 29 local issues, 15 environmental issues and 14 non-environmental issues (See Tables 3 and 4). This section of the report summarizes respondent data on 15 local urban environmental issues which are listed in Table 3 Local Urban Environmental Issues Queried.

Table 3. Local Urban Environmental Issues Queried

Water	Air	Waste
Quality of drinking water from public water systems	Air pollution from cars	Adequacy of landfills
Protection of ground water and wells	Air pollution from businesses or industrial sites	Location of landfills
Depletion of the water table	Air pollution from burning leaves	Hazardous waste dumping in the local area
Pollution of streams, rivers. lakes, and oceans in the urban area	Ozone alerts in the community	Use of potentially harmful pesticides
Adequacy of long-term supply of drinking water		Disposal of animal waste
Adequacy of sewage treatment facilities		

For each of the 29 local issues, respondents were asked to rate how- important the issue is in their specific metropolitan statistical area (MSA) on a scale of one to ten, with one being *not important at all* and ten being *extremely* important. To minimize potential bias due the ordering of survey questions, the local environmental issues were randomized together with non-environmental issues for each respondent.

For each environmental issue a respondent rated six or higher, the respondent was then asked whether s/he believed the issue has gotten *better, worse,* or has stayed the *same* during the last five years. The findings in this report focus primarily on this data about environmental trends. because it best highlights respondent perceptions of environmental concerns and trends in their community.

For each environmental issue a respondent rated six or greater, the respondent was also asked if she had been actively involved in this issue (e.g. written letters, attended public meetings, joined an advocacy group). Lastly, respondents were asked if they or anyone in their family had been negatively affected by any of these environmental issues. Both questions are indicators of levels of potential interest and involvement.

All findings in this report are based on ordinal data, meaning respondents were asked to report their answers on a scale whose values are defined by the respondent. Response categories form an ordered series. Ordinal scales permit discussion of "moreness" or "lessness," but make no

assumptions as to how much more or less. Therefore, results of this study should not be interpreted as interval data. in which an answer of "four" can be characterized as **"twice as** good" as a rating of "two".

To simplify the following discussions of survey findings, references will be made to *national urban* and regional *urban* findings. *National urban* findings relate to overall survey findings for all 86 EMPACT MSAs across the country. No generalizations can be made to non-MSA or rural populations. Similarly, *regional urban* findings refer to combined survey findings for all EMPACT MSAs within an EPA Region. For example, the findings for Region 1 reflect the responses from citizens sampled from the seven EMPACT MSAs (Boston, MA; Bridgeport, CT; Burlington, VT; Hartford, CT; Portland, ME; Providence, RI, and Springfield, MA) located in EPA's Region 1. Therefore, generalizations cannot be made to the entire regional population.

Appendix A contains an alphabetical listing of the 86 EMPACT MSAs and a listing of the EMPACT MSAs by the EPA Region in which they are located.

II. Environmental Issues vs. Non-Environmental Issues

In addition to rating local environmental issues, respondents were also asked to rate the importance of 14 non-environmental issues in Table 4 Local Non-environmental Issues Queried. As noted above, the ordering of the 29 combined environmental and non-environmental issues were randomized.

Table 4. Local Urban Non-environmental Issues Queried

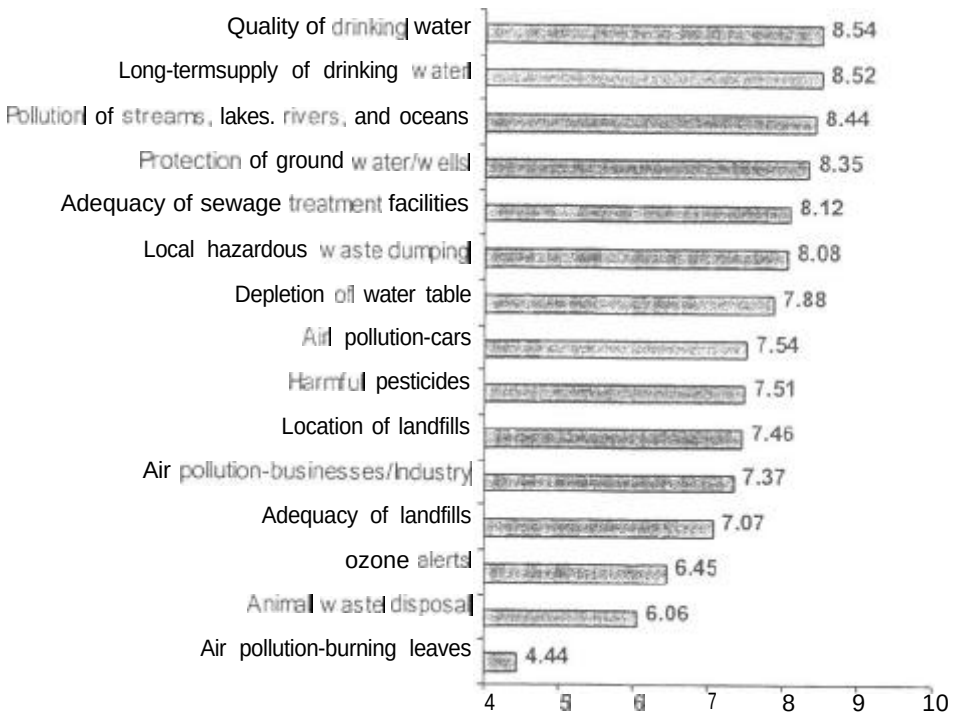
- Local crime rate
- Illegal drug use
- Quality of public education
- Adequacy of local highway system
- Availability of housing for low income citizens
- Ability of the community to respond to natural disasters
- Availability of public transportation
- Favorable business climate
- Rate of unemployment
- Level of local taxes
- Poverty in local community
- Adequacy of municipal services (e.g., trash and snow removal, police and fird protection)
- Rate of urban growth
- Health of the local economy

As a whole, respondents rate local environmental issues as slightly more important than non-environmental issues. Compared to the six local environmental issues with mean importance ratings of at least 8.00, only three non-environmental issues are rated as highly. The non-environmental issues that are most important to respondents are the quality of public education. the local crime rate, and illegal drug use.

III. Overview: Importance of Local Environmental Issues

Nationally, six of the seven most important local environmental issues to respondents relate to water. It should be noted that, although significant issues exist among the different local environmental issues, a large percentage of respondents rated each issue as six or higher.

Figure 1. Local Environmental Issues Mean Importance Ratings



Other general trends obtained from the data include:

- Although water issues are generally ranked important by respondents, two waste issues (adequacy of sewage treatment facilities and local hazardous waste) are ranked among the seven most important local environmental issues.

- Overall, waste issues are ranked similar in importance to air issues; however, respondents are more likely to be actively involved in air issues.

- Respondents in Region 8 report relatively low importance ratings for every local environmental issue. However, for many issues, respondents in Region 8 are more likely to indicate that the issue has become worse during the last five years.

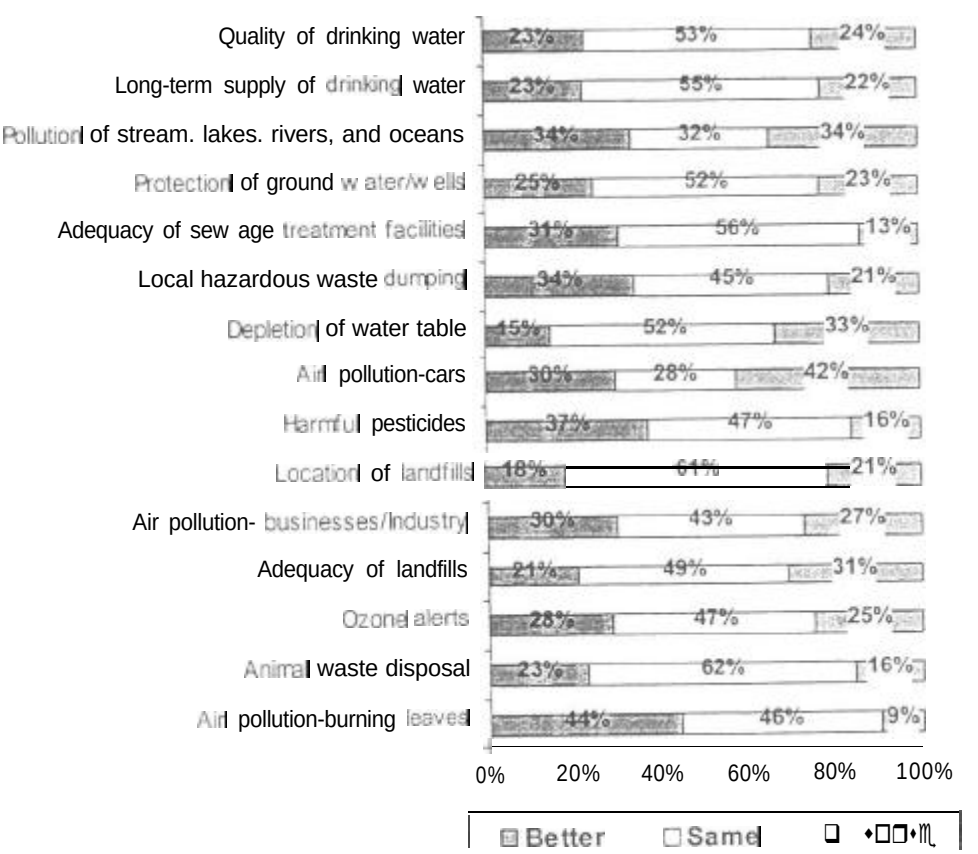
- The importance of specific issues varies slightly by region. Although nationally the pollution of streams, lakes, rivers, and oceans is ranked third in importance, it is ranked first by respondents from EMPACT MSAs in Regions 1 and 10. Similarly, the long-term supply of drinking water, which is ranked first in Region 2, Region 4, Region 6, and Region 8, is the fourth most important issue in Region 10.

IV. Local Environmental Issues: Better, Worse, or the Same During the Last Five Years

Although respondents rate water issues highest in importance, they are more likely to believe that the quality of air issues has declined during the last five years than water issues (See Table 6). When asked whether each issue has become *better,* has stayed the *same,* or has become *worse* during the last five years, 42% of respondents report that air pollution from cars has become worse.

The following section will focus on the responses about whether specific local environmental conditions have gotten *better,* stayed the same, or gotten *worse* during the last five years. Each section discusses some overall non-statistical generalizations that can be made about each local environmental issue by EPA Region. The issues are grouped by type of issues (i.e., water. air. and waste). Within each type, issues are ordered by importance. The data included within each section reflects perceptions of the local environmental issues *for respondents who rated each issues as a six or higher.*

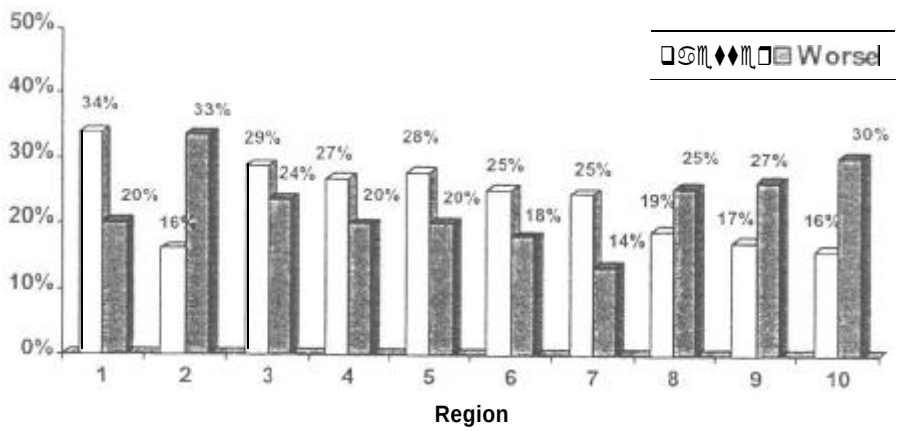
Figure 2. Local Environmental Issues Improvement or Decline During the Last Five Years



A. Quality of Drinking Water from Public Water Systems

When asked whether the quality of drinking water has become *better*, has stayed the same, or has become *worse* during the last five years, respondents in Region 2, Region 8, Region 9, and Region 10 are more likely to report that the quality of drinking water has declined than to report it has improved.

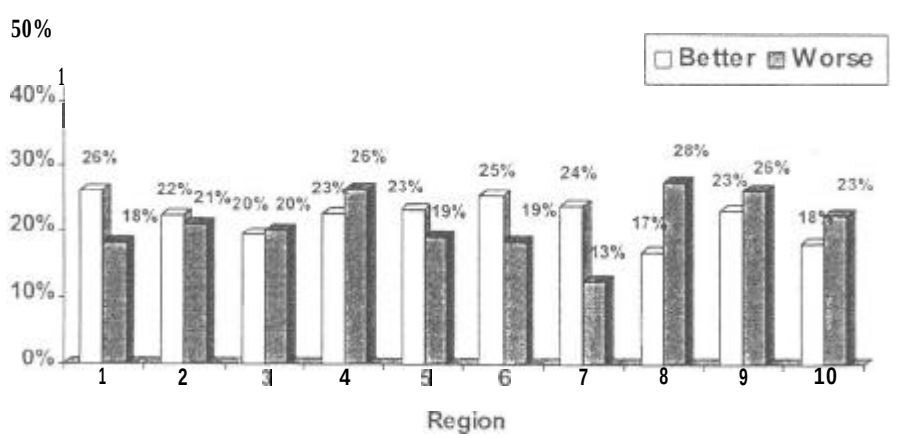
Figure 3. Quality of Drinking Water by Region: Improvement or Decline During Last Five Years



B. Long-Term Supply of Drinking Water

Respondents in Region 3, Region 8, and Region 9 are most likely to report a decline during the last five years than respondents in other regions,

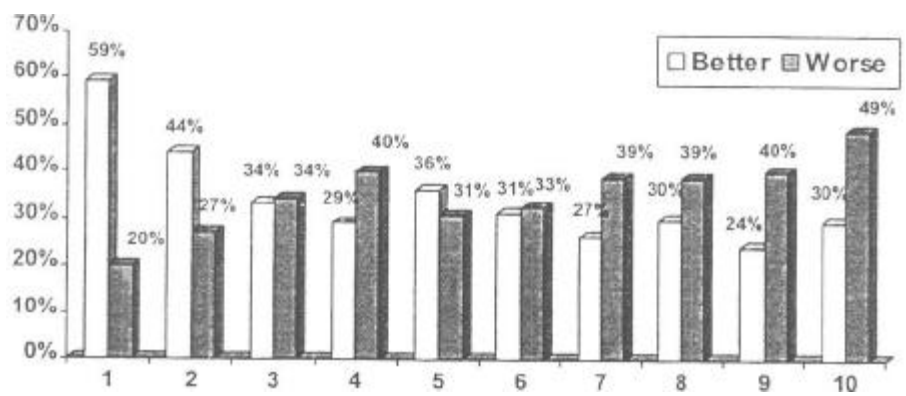
Figure 4. Long-Term Supply of Drinking Water by Region: Improvement or Decline During Last Five Years



C. Pollution of Streams, Lakes, Rivers, and Oceans in the Urban Area

Respondents in Region 4, Region 9, and Region 10 are most likely to report that urban water pollution has become worse during the last five years. Conversely, respondents in Region 1 and Region 2 are least likely to report a decline and are overwhelmingly most likely to report that urban water pollution has improved. This finding is very interesting. as it shows the disparity between the perceptions of East Coast respondents and West Coast respondents.

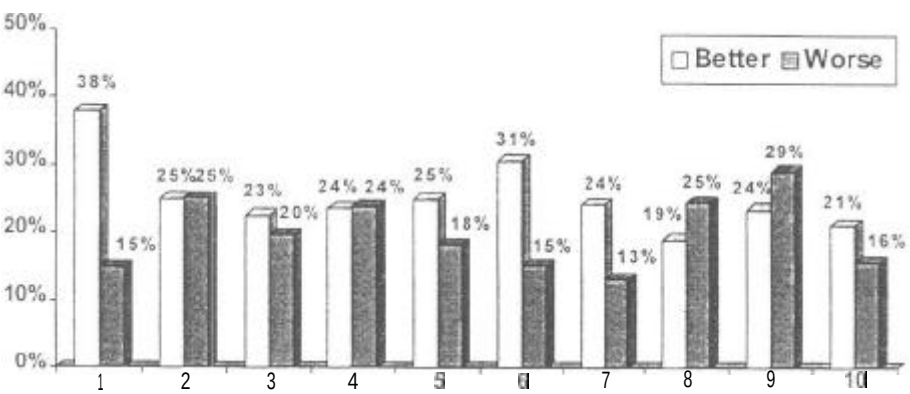
Figure 5. Urban Water Pollution by Region: Improvement or Decline During Last Five Years



D. Protection of Ground Water and Wells

Respondents located in Region 8 and Region 9 are more likely to report a decline in the protection of ground water and wells during the last five years than to report an improvement. However, respondents in Region 1 and Region 6 report that the protection of ground water and wells has become better.

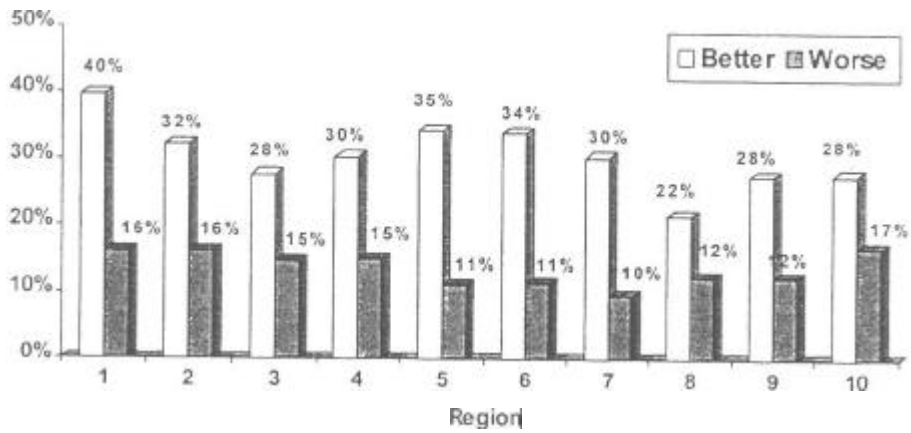
Figure 6. Protection of Ground Water and Wells by Region: Improvement or Decline During Last Five Years



E. Adequacy of Sewage Treatment Facilities

Respondents in Region 1, Region 5, and Region 6 are most likely to report that the adequacy of sewage treatment facilities has improved during the last five years. Respondents from Region 8 are least likely to report an improvement.

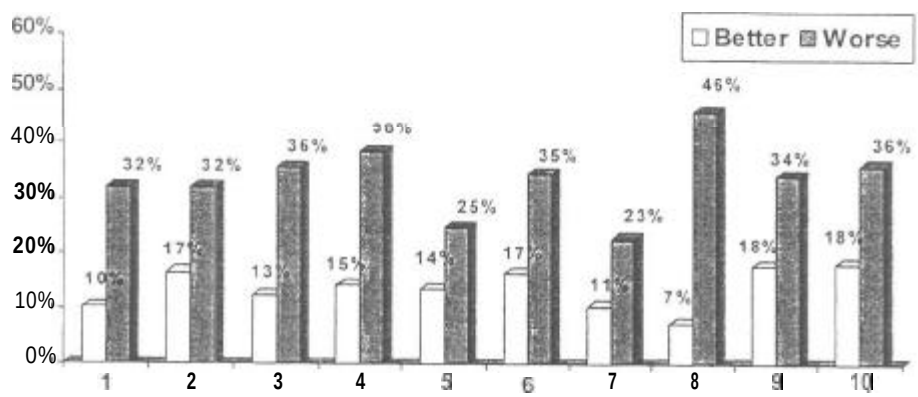
Figure 7. Adequacy of Sewage Treatment Facilities by Region: improvement or Decline During Last Five Years



F. Depletion of the Water Table

Respondents in Region 8 are least likely to report that water table depletion has become better during the last five years and are significantly more likely to report that it has become worse. Respondents in Region 5 and Region 7 are least likely to report a decline, however, like all regions they are still more likely to report a decline than an improvement.

Figure 8. Depletion of the Water Table by Region: Improvement or Decline During Last Five Years

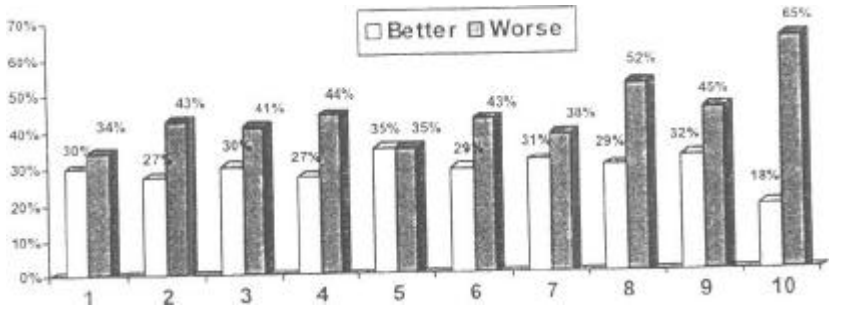


Chapter III. Local Urban Environmental Issues

G. Air Pollution from Cars

Nearly two thirds of respondents in Region 10 (65%) report that car pollution has become worse during the last five years and only 18% report that it has improved. This is, by far, the highest percentage of any region. Also, more than half of respondents in Region 8 (52%) believe that car pollution has worsened during the past five years. As a whole. respondents in the Western United States are more likely to report that air pollution from cars has become worse than those in the East and Midwest.

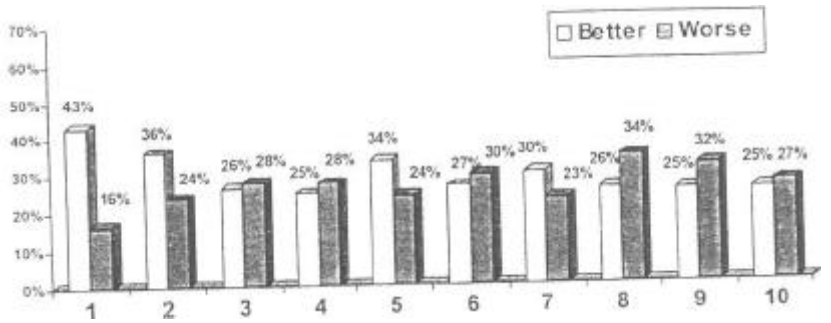
Figure 9. Air Pollution from Cars by Region: Improvement or Decline During Last Five Years



H. Air Pollution from Businesses and Industries

Respondents in the Northeast are most likely to report that air pollution from businesses and industry has become better during the last five years. Forty-three percent of respondents in Region 1 report that air pollution from businesses and industry has improved during the last five years, the highest percentage of any region. In three other regions, Region 2, Region 5, and Region 7, more respondents report that the pollution has improved rather than declined, In two regions, Region 8 and Region 9, considerably more respondents report that this issue has gotten worse than reported that it has gotten better.

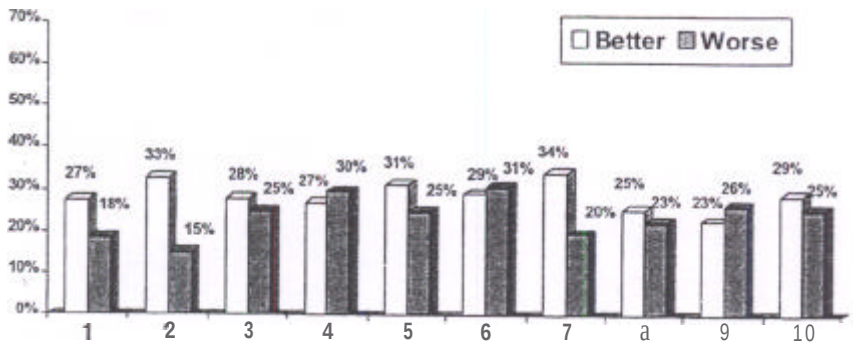
Figure 10. Air Pollution from Businesses and Industries by Region: Improvement or Decline During Last Five Years



I. Ozone Alerts in the Community

Respondents in Region 2 and Region 7 are most likely to report that the alerts have improved during the last five years.

Figure 11. Ozone Alerts in the Community by Region: Improvement or Decline During Last Five Years

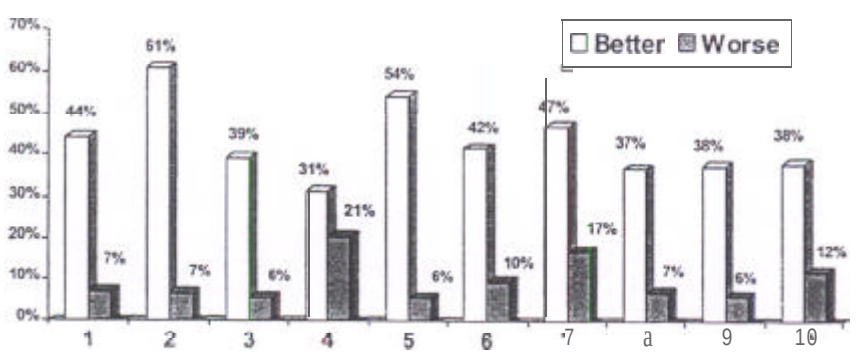


J. Air Pollution from Burning Leaves

Air pollution from burning leaves receives the lowest importance ratings of any local environmental issue.

A large percentage of respondents report that air pollution from burning leaves has improved during the last five years. Relative to other issues, few respondents report that the air pollution from burning leaves has become worse. Respondents in Region 2 and Region 5 are most likely to report an improvement in air pollution from burning leaves.

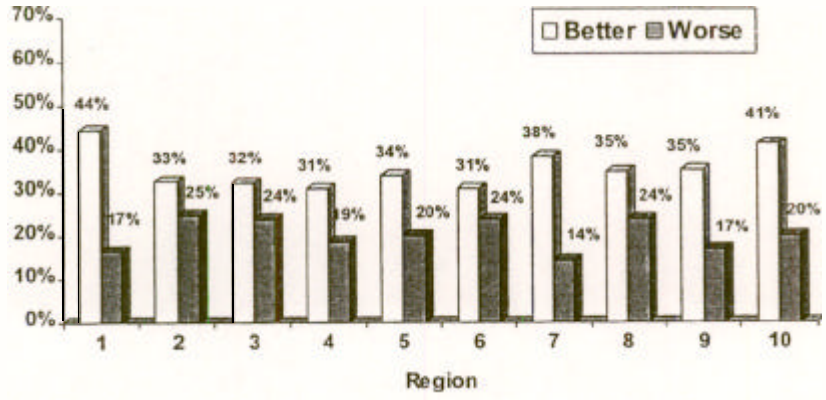
Figure 12. Air Pollution from Burning Leaves by Region: Improvement or Decline During Last Five Years



K. Local Hazardous Waste Dumping

Respondents in Region 1 and Region 10 are most likely to report that local hazardous waste dumping has improved during the last five years. Respondents from Region 7 are most likely to report a decline.

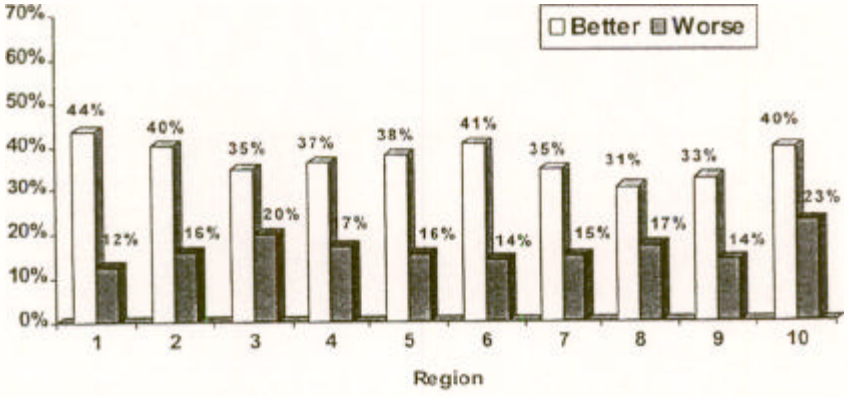
Figure 13. Local Hazardous Waste Dumping by Region: Improvement or Decline During Last Five Years



L. Use of Potentially Harmful Pesticides

Respondents in Region 1 are most likely to report that the use of harmful pesticides has improved during the last five years. Respondents from Region 8 and Region 9 are least likely to report an improvement. Respondents from Region 3 and Region 10 are most likely to report a decline.

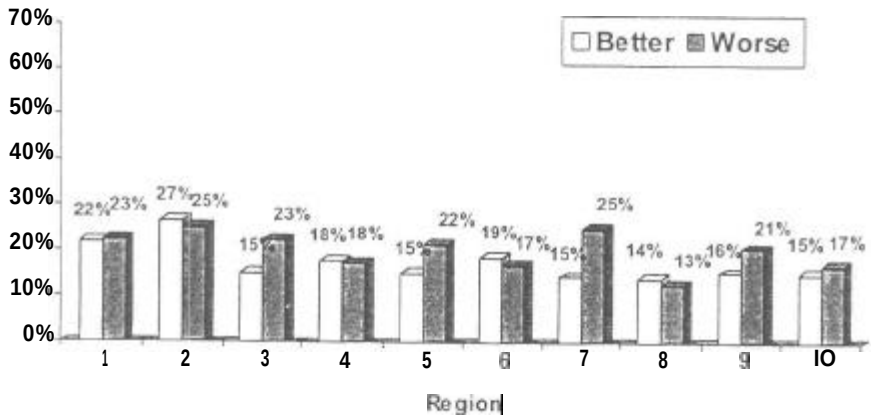
Figure 14. Use of Potentially Harmful Pesticides by Region: Improvement or Decline During Last Five Years



M. Location of Landfills

Respondents in Region 1 and Region 2 are most likely to report that the location of landfills has improved during thd last five years. Respondents in Region ? are much more likely to report that the locations have become worse than report that it has improved.

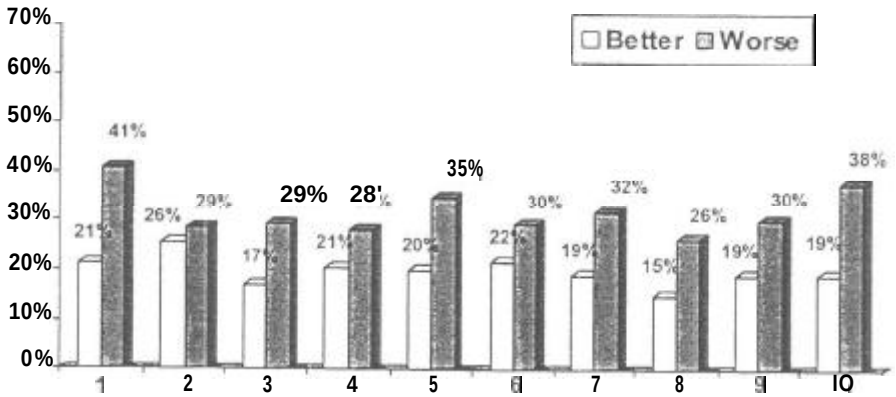
Figure 15. Location of Landfills by Region: Improvement or Decline During Last Five Years



N. Adequacy of Landfills

Respondents in Region 1 and Region 10 are most likely to report that the adequacy of landfills has become worse during the last five years.

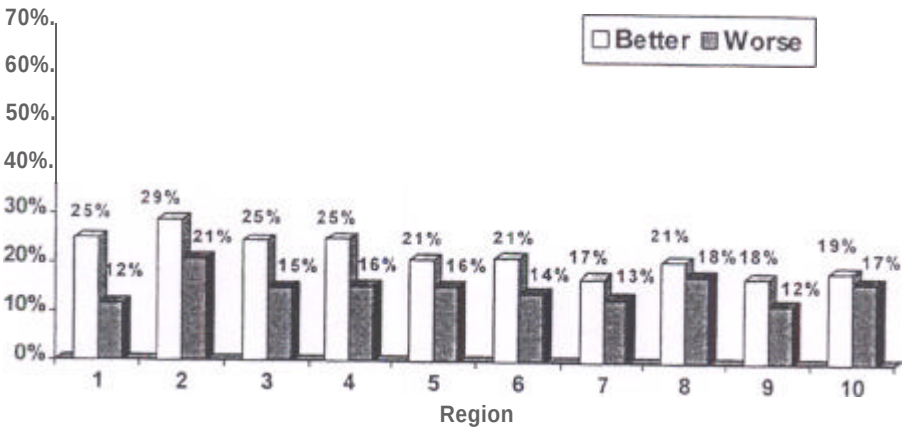
Figure 16. Adequacy of Landfills by Region: Improvement or Decline During Last Five Years



0. Disposal of Animal Waste

Respondents in Region 2 are most likely to report that animal waste disposal has become worse during the last five years and are also most likely to report that disposal of animal waste has improved.

Figure 17. Animal Waste Disposal by Region: Improvement or Decline During Last Five Years



V. Differences in Local Environmental Concerns Among EMPACT MSA's

There is some variation in the most important local environmental issues identified by citizens in different MSAs. In this section, MSA variations are illustrated using four EMPACT MSAs (Albuquerque, NM; Boston, MA; Louisville, KY; and Seattle, WA) located in different parts of the country. For example, there was variation in the five most important local environmental issues identified by respondents from these four MSAs. Respondents from all four MSAs rated three common issues among the five most important in their communities; "long-term water supply," "quality of drinking water," and "protection of groundwater and wells," The other hvo most important issues in each MSA were other water issues, waste issues, and for one MSA, Albuquerque, pollution from cars. Table 5. Five Most Important Local Environmental Issues: Four Geographically Diverse MSAs lists the numeric importance ranking and mean ranking of eight local environmental issues for these four MSAs. One example of variation among these MSAs is the importance ranking of "water table depletion." This is ranked the second most important environmental issue by Albuquerque respondents; but ranked 7, 8 and 11 respectively by respondents from Boston, Seattle, and Louisville. There are also variations among MSAs regarding perceived environmental trends; whether an issue has gotten better, stayed the same, or worsened in the last five years. Table 6. Five Most Important Local Environmental Issues for Four Geographically Diverse MSAs: Ratings of Better of Worse During the Last 5 Years illustrates this variation among four MSAs.

Table 5. Five Most Important Local Environmental Issues: Four Geographically Diverse MSAs

	Albuquerque Ranking/Rating		Boston Ranking/Rating		Louisville Ranking/Rating		Seattle Ranking/Rating	
Long-term water supply	1	(8.5)	4	(8.4)	1	(8.2)	4	(8.5)
Protection of ground water & wells	3	(8.3)	3	(8.5)	5	(7.3)	3	(8.5)
Quality of drinking water	4	(7.8)	5	(8.4)	2	(8.1)	2	(8.5)
Pollution of stream/lakes	6	(7.4)	1	(8.6)	3	(8.0)	1	(8.7)
Local waste dumping	8	(7.1)	2	(8.5)	8	(7.0)	5	(8.3)
Adequacy of sewage treatment	7	(7.2)	6	(8.2)	4	(7.8)	6	(8.2)
Water table depletion	2	(8.5)	7	(7.7)	11	(6.8)	8	(7.7)
Pollution from cars	5	(7.5)	9	(7.2)	7	(7.1)	8	(7.7)

Table 6. Five Most important Local Environmental Issues in Four Geographically Diverse MSAs: Ratings of Better or Worse During the Last 5 Years

	Albuquerque Better/Worse		Boston Better/Worse		Louisville Better/Worse		Seattle Better/Worse	
Long-term water supply	15%	(46%)	30%	(24%)	37%	(10%)	18%	(25%)
Protection of ground water & wells	31%	(34%)	52%	(13%)	32%	(20%)	18%	(33%)
Quality of Drinking water	21%	(18%)	37%	(24%)	43%	(20%)	15%	(33%)
Pollution of streams/lakes	31%	(32%)	70%	(14%)	42%	(25%)	27%	(51%)
Local waste dumping	28%	(23%)	51%	(19%)	29%	(14%)	45%	(19%)
Adequacy of sewage treatment	38%	(10%)	44%	(18%)	49%	(13%)	25%	(21%)
Water table depletion	15%	(63%)	12%	(44%)	27%	(15%)	20%	(38%)
Pollution from cars	42%	(36%)	30%	(36%)	83%	(12%)	13%	(70%)

VI. Overview of Local Environmental Issues by Demographics

An analysis was conducted with the environmental importance rankings and the demographic variables. A significant finding was that attitudes about the importance of local environmental issues varied by race. Table 7 Mean Importance Rankings of Local Environmental Issues By Race illustrates these results. The bolded figures are significantly different from the mean importance ratings for the overall group. Hispanic and African-American respondents tended to rate local environmental issues significantly higher than other groups. Conversely, Caucasian respondents tended to rate environmental issues significantly lower.

Table 7. Mean Importance Ranking of Local Environmental Issues By Race

	Total	Hispanic	Asian	African American	Caucasian	Native American
Pollution- cars	7.5	**7.9**	7.4	**7.6**	7.0	7.2
Pollution- industry	7.4	7.6	6.9	**7.7**	7.0	7.1
Pollution- burning leaves	4.4	**5.3**	4.7	**5.4**	**4.1**	4.5
Ozone alerts	6.5	**7.3**	6.0	**7.1**	**5.8**	6.5
Landfill adequacy	7.0	**7.5**	6.6	7.2	6.8	6.9
Landfill location	7.5	7.4	**6.8**	**7.7**	**7.2**	7.2
Local waste dumping	8.0	**8.2**	7.7	8.1	**7.8**	8.0
Harmful pesticides	7.5	**7.7**	7.4	**7.7**	**7.2**	7.3
Animal waste disposal	6.1	**6.7**	5.7	**7.0**	**5.7**	6.3
Quality of drinking water	8.5	8.6	8.0	8.5	8.3	8.4
Ground water and wells	8.4	8.5	7.6	8.2	8.2	8.3
Water table depletion	7.9	**8.1**	**7.1**	8.0	7.7	7.9
Pollution of streams/lakes	8.4	8.6	**7.8**	8.4	8.3	8.5
Long-term water supply	8.5	8.3	8.0	8.7	8.3	8.4
Adequacy of sewage treatment	8.1	8.2	7.4	**8.4**	7.9	7.9

Note: the shaded figures indicate those measures significantly different from the aggregate of the other MSAs

Chapter IV

Sources of Local Environmental Information

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Chapter IV. Sources of Local Environmental Information

I. Introduction

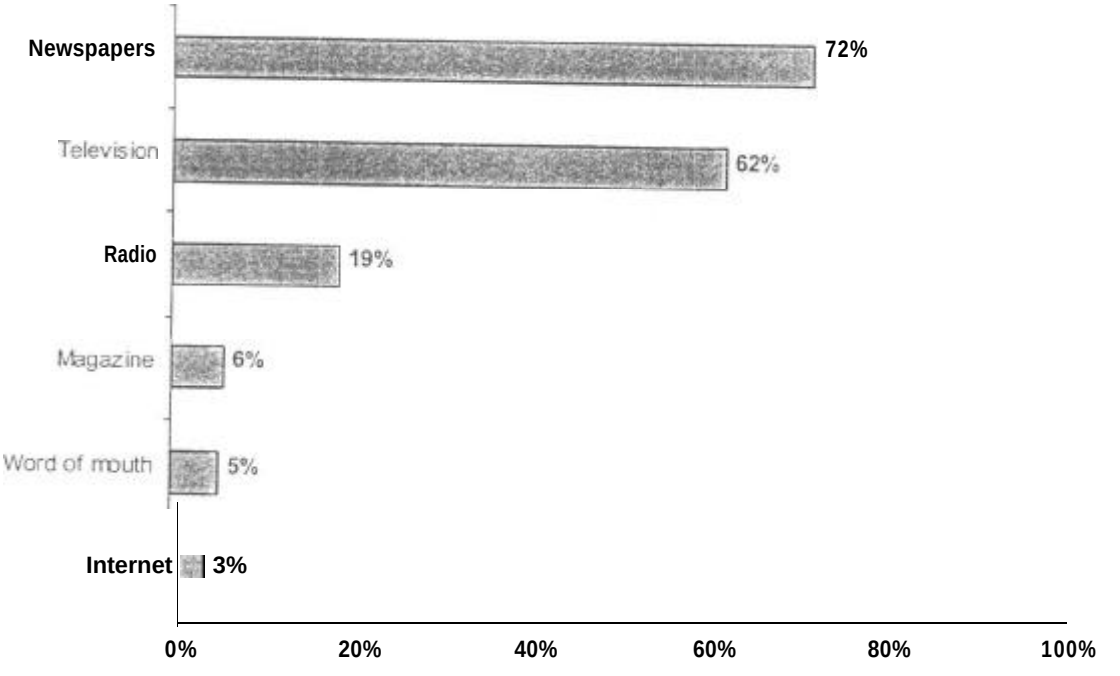
In addition to obtaining data about the importance of local environmental issues, the *EMPACT Local Urban Environmental Issues Survey* also gathered data about how people generally obtain information about local environmental issues in their communities. This chapter summarizes data about commonly reported information sources, the quality of local urban environmental information provided by selected sources, and Internet usage.

II. Sources of Local Environmental Information

The survey asked respondents to identify the sources from which they hear or learn about urban environmental issues and conditions in their local area. Respondents were allowed to mention one or more sources.

Nearly three-quarters of respondents (72 %) report that they obtain their information from newspapers, more than any other information source. Sixty-two percent (62%) of respondents report receiving local environmental information from television. Only 3 % report receiving local environmental information from the Internet. Several other sources, such as billboards. bus-side ads, posters, hotlines, universities, state governments, and the Federal Government were also mentioned, but by fewer than 1% of the respondents.

Figure 18. Most Common Sources of Local Environmental Information



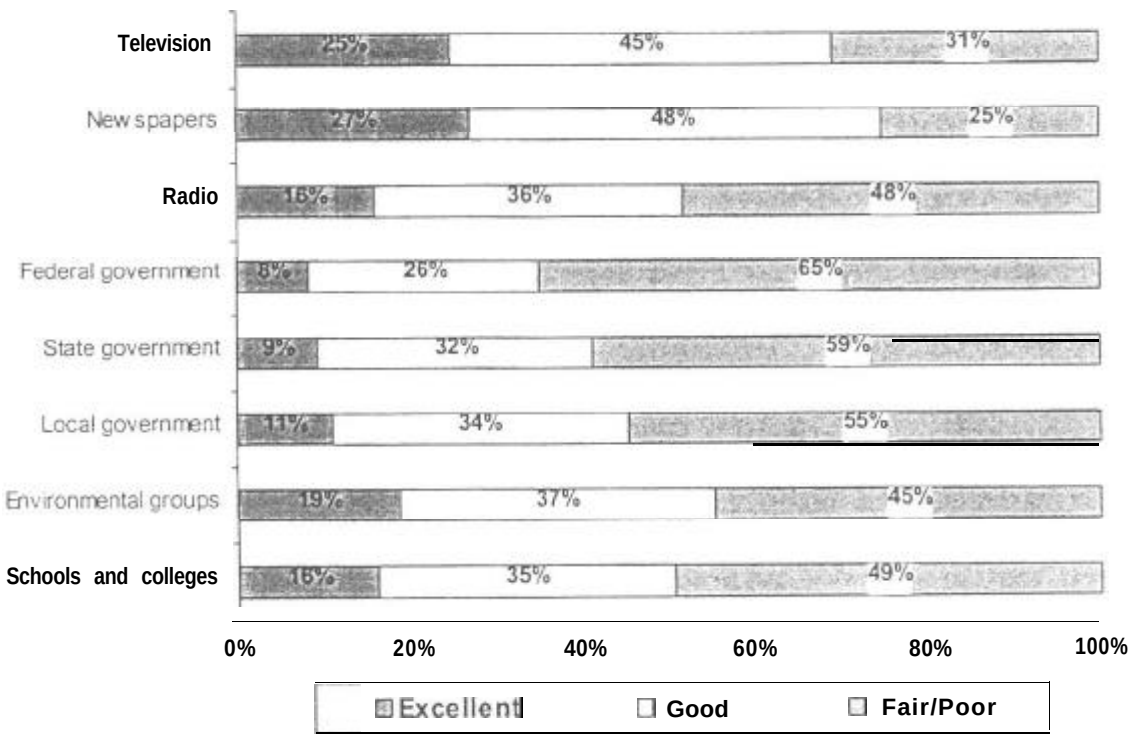
Quality of Information Sources

Respondents were also asked to rate the quality of the local environmental information that they received from selected information sources on a scale of 1 to 10, with 10 being *excellent* and 1 being *very* poor. The responses were categorized as follows:

- Excellent (9 or 10)
- Good (6, 7, or 8)
- Fair (4 or 5)
- Poor (1, 2, or 3)

Respondents report that the most often used sources, newspapers and television, provide the highest quality local information. The three government sources received the lowest rating, with more than 50% rating each "fair" or "poor". The significantly least rated government source of local environmental information is the Federal Government (65 % fair or poor), followed by state government (59%) and local government (55 %).

Figure 19. Quality of Local Environmental Information from Selected Sources



IV. Other Sources of Local Environmental Information

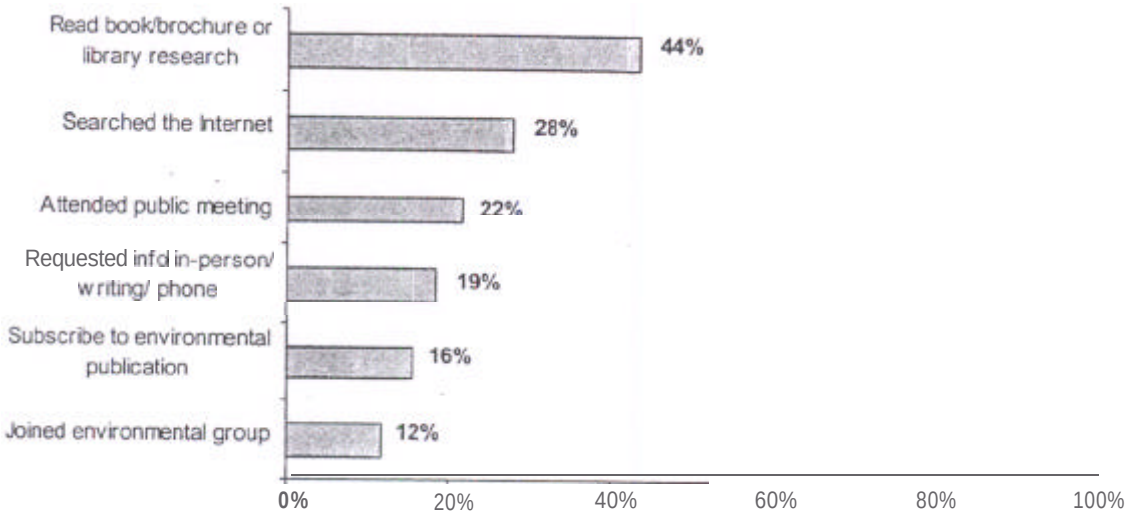
The survey asked whether the respondent or any other adult in the respondent's household has obtained environmental information by:

- Requesting information in-person, in writing, or by telephone
- Subscribing to an environmental publication such as a magazine
- Reading a book or brochure or having done a library search
- Joining an environmental group
- Searching the Internet
- Attending a public meeting for information

This question did not specifically focus on local urban environmental issues, but on environmental issues in general.

Almost half of respondents (44 %) report that a member of their household has read a book or brochure or has done a library search for environmental information. Interestingly, although respondents were unlikely to mention the Internet when asked to list their sources of local environmental information, more than one quarter (28 %) report that a member of their household has done an Internet search for environmental information. This may be because the latter question pertained to all environmental information (not just local) and asked the respondent to answer regarding all members of the household.

Figure 20. Other Sources of Information on Local Environmental Issues

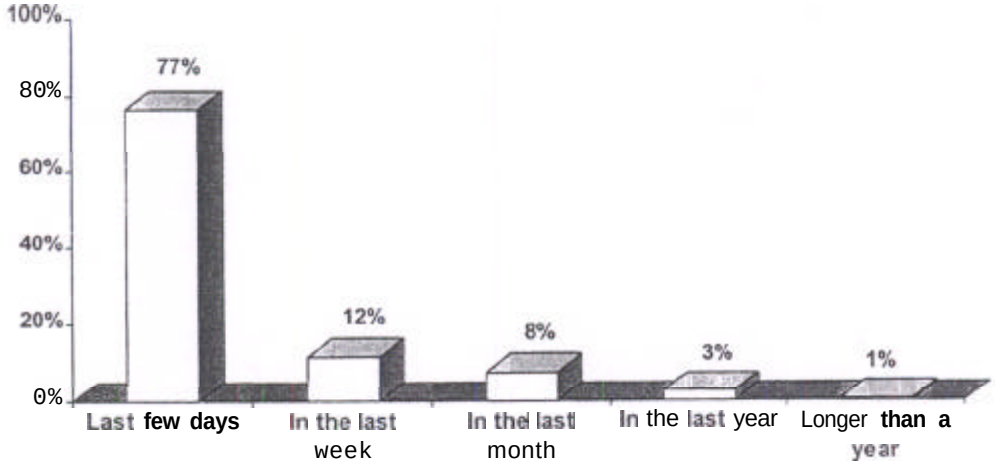


Chapter IV. Sources of Local Environmental Information

A. Internet Access

When asked if they had access to the Internet, 59% of respondents report that they do. Of those who have access to the Internet, 77% report using the Internet during the last few days and 89% report using it during the last week. Because this study was a telephone survey and all respondents had residential telephone service, these results may be higher than actual Internet saturation in the 86 EMPACT MSAs. It should also be noted that Internet saturation is generally higher in urban populations than in the overall United States population.

Figure 21. Internet Usage



Chapter V

Discussion

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Chapter V. Discussion

The EMPACT Survey findings indicated that local environmental issues are very important to citizens living in 86 of the nation's largest metropolitan areas; as important as non-environmental issues, and in many cases, more important. The findings also indicate that citizens in all demographic strata consider local environmental issues in their communities important, but that demographic groups differ as to the environmental issues they consider most important. These survey findings reflect the opinions of citizens living in 86 metropolitan areas and cannot be generalized to residents of small communities and rural areas. Citizens' opinions are broadly based and include a host experiences and factors deemed important to the quality-of-life they want for themselves, their children and their community.

The findings also indicate that the local environmental issues most important to citizens vary across the 86 MSAs. **Citizens'** perceptions of whether their most important local environmental issues have improved or deteriorated also vary by MSAs, among the MSAs grouped by EPA Regions, and among demographic groups. These differences point to the different local environmental issues and environmental trends facing different urban areas. The variations among different demographic groupings point to differing opinions about what local environmental issues are most important and trends in local environmental quality.

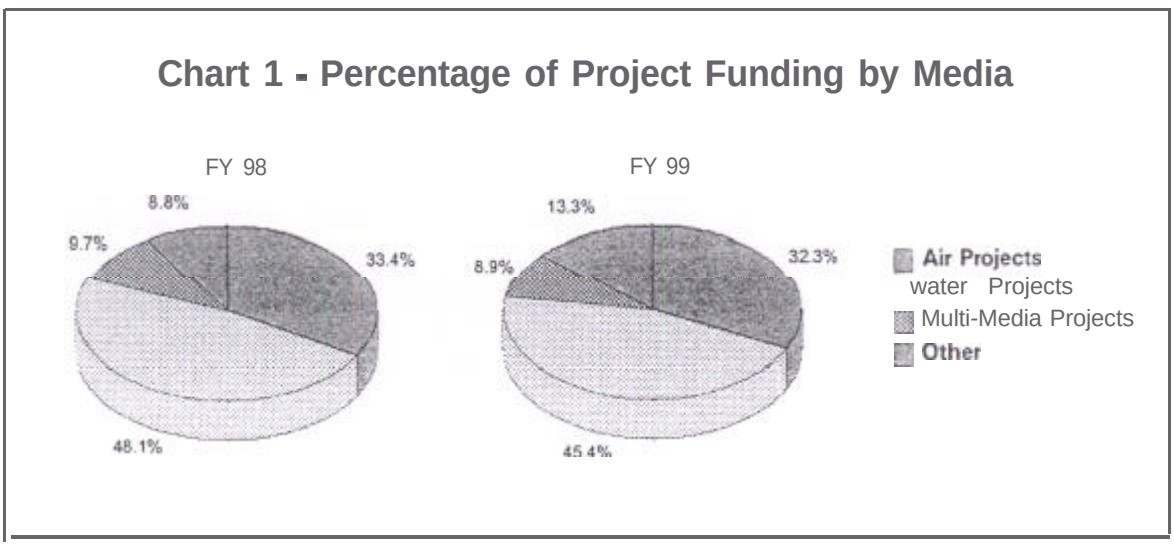
The results raise interesting questions about citizen opinion and perception versus scientific assessment. How accurate are citizens' perceptions of local environmental improvement or decline as compared to scientifically measured environmental parameters? A close look at the findings may reveal instances where citizens' concerns, or even optimism, with a local environmental issue may be inconsistent with the scientific evidence (e.g., monitoring data). Any such inconsistency would not discount the importance of citizens' opinions. As noted above, citizens' opinions are more broad based, often including decades of personal observation and experience in an area, as well as years of publicity around a subject. Consequently, differences between public opinion and scientific evidence should be explored and **may** identify opportunities for public discourse about local environmental issues, educational needs, resource allocations, community and individual decision-making, and overall quality-of-life standards and goals

The findings were used in the EMPACT grants review relevancy process to guide reviewers **in** considering the most important projects to fund. It is important to emphasize that the findings were a guide and not the sole criteria for determining the relevancy of a grant proposal to the EMPACT Program. It is possible for example, that a grant that addressed an issue of high concern to citizens in an MSA was not as worthy as one that did not address concerns directly. The scientific urgency of the local environmental issue was also considered,

Chapter V. Discussion

The survey findings were also used to evaluate the extent to which the EMPACT Program, through the funding of its Metro grants, EPA-led and Research grants, was addressing the most identified local environmental concerns of people living in the 86 metropolitan areas. The survey results show that residents in these metropolitan areas are most concerned with water related issues, including drinking water quality and water pollution. As Figure 22 shows, EMPACT has placed a major emphasis on water related issues, investing 48.1% of its project funding in water projects. There are currently over 19 separate EMPACT Projects monitoring water quality parameters in over 25 separate areas communities

Figure 22. Percentage of Project Funding by Media



This survey is an important step in understanding citizens' perceptions of local environmental issues in the urban areas in which they live. Many studies have been conducted on environmental issues, but none have taken a comprehensive look at local environmental issues as broadly as this study has.

Appendix A

EMPACT Metropolitan Areas

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EMPACT Metropolitan Area

Albany- Schenectady- Troy, NY
Albuquerque, NM
Allentown- Bethlehem- Easton, PA
Anchorage, AK
Atlanta, GA
Austin- San Marcos, TX
Bakersfield, CA
Billings, MT
Birmingham, AL
Boise, ID
Boston, MA- NH
Bridgeport, CT
Buffalo- Niagara Falls, NY
Burlington, VT
Charleston- North Charleston, SC
Charleston, WV
Charlotte- Gastonia- Rock Hill, NC- SC
Cheyenne, WY
Chicago- Gary- Kenosha, IL-IN- WI
Cincinnati- Hamilton, OH- KT- IN
Cleveland- Akron, OH
Columbus, OH
Dallas- Fort Worth, TX
Dayton- Springfield, OH
Denver- Boulder- Greeley, CO
Detroit- Ann Arbor- Flint, MI
EL Paso, TX
Fargo- Moorhead, ND- MN
Fresno, CA
Grand Rapids- Muskegon-Holland, MI
Greensboro- Winston Salem- High Point, NC
Greenville- Spartanburg- Anderson, SC
Harrisburg- Lebanon- Carlisle, PA
Hartford. CT
Honolulu, HI
Houston- Galveston- Brazoria, TX
Indianapolis, IN
Jackson, MS
Jacksonville, FL
Kansas City, MO- KS
Knoxville, TN
Las Vegas, NV

Little Rock- North Little Rock, AR
Los Angeles- Riverside- Orange County, CA
Louisville, KY- IN
Memphis, TN- AR- MS
Miami- Fort Lauderdale, FL
Milwaukee- Racine, WI
Minneapolis- St. Paul, MN
Nashville, TN
New Orleans, LA
New York- Northern New Jersey- Long Island, NY- NJ- CT- PA
Norfolk- Virginia Beach-Newport News, VA- NC
Oklahoma City, OK
Omaha, NE- IA
Orlando, FL
Philadelphia- Wilmington- Atlantic City, PA- NJ- DE- MD
Phoenix- Mesa, AZ
Pittsburgh, PA
Portland, ME
Portland- Salem, OR- WA
Providence- Fall River-Warwick, RI- MA
Raleigh- Durham- Chapel Hill, NC
Richmond- Petersburg, VA
Rochester, NY
Sacramento- Yolo, CA
Salt Lake City- Ogden, UT
San Antonio, TX
San Diego, CA
San Francisco- Oakland- San Jose, CA
San Juan, PR
Scranton- Wilkes- Barre- Hazleton, PA
Seattle- Tacoma- Bremerton, WA
Sioux Falls, SD
Springfield, MA
St. Louis- E. St. Louis, MO- IL
Stockton- Lodi, CA
Syracuse, NY
Tampa- St. Petersburg-Clearwater, FL
Toledo, OH
Tucson, AZ
Tulsa, OK
Washington- Baltimore, DC- MD - VA - WV
West Palm Beach- Boca Raton, FL
Wichita, KS
Youngstown-Warren, OH

EMPACT Metropolitan Area

Region I

Boston, MA- NH
Bridgeport, CT
Burlington, VT
Hartford, CT
Portland, ME
Providence- Fall River-Warwick, RI- MA
Springfield, MA

Region II

Albany- Schenectady- Troy, NY
Buffalo- Niagara Falls, NY
New York- Northern New Jersey- Long Island, NY- NJ- CT- PA
Rochester, NY
San Juan, PR
Syracuse, NY

Region III

Allentown- Bethlehem- Easton, PA
Charleston, WV
Harrisburg- Lebanon- Carlisle, PA
Norfolk- Virginia Beach-Newport News, VA- NC
Philadelphia- Wilmington- Atlantic City, PA- NJ- DE- MD
Pittsburgh, PA
Richmond- Petersburg, VA
Scranton- Wilkes- Barre- Hazleton, PA
Washington- Baltimore, DC- MD - VA - WV

Region IV

Atlanta, GA
Birmingham, AL
Charleston- North Charleston, SC
Charlotte- Gastonia- Rock Hill, NC- SC
Greensboro- Winston Salem- High Point, NC
Greenville- Spartanburg- Anderson, SC
Jackson, MS
Jacksonville, FL
Knoxville, TN

Louisville, KY- IN
Memphis, TN- AR- MS
Miami- Fort Lauderdale, FL
Nashville, TN
Orlando, FL
Raleigh- Durham- Chapel Hill, NC
Tampa- St. Petersburg-Clearwater, FL
West Palm Beach- Boca Raton. FL

Region V

Chicago- Gary- Kenosha, IL-M- WI
Cincinnati- Hamilton, OH- KT- IN
Cleveland- Akron, OH
Columbus, OH
Dayton- Springfield, OH
Detroit- Ann Arbor- Flint, Ml
Fargo- Moorhead, ND- MN
Grand Rapids- Muskegon-Holland, MI
Indianapolis, IN
Louisville, KY- IN
Milwaukee- Racine, Wl
Minneapolis- St. Paul, MN
St. Louis- E. St. Louis, MO- IL
Toledo, OH
Youngstown-Warren, OH

Region VI

Albuquerque, NM
Austin- San Marcos, TX
Dallas- Fort Worth, TX
EL Paso, TX
Houston- Galveston- Brazoria, TX
Little Rock- North Little Rock, AR
Memphis, TN- AR MS
New Orleans, LA
Oklahoma City, OK
San Antonio, TX
Tulsa, OK

EMPACT Metropolitan Area

Region VII

Kansas City, MO- KS
Omaha, NE- IA
St. Louis- E. St. Louis, MO- IL
Wichita, KS

Region VIII

Billings, MT
Cheyenne, WY
Denver- Boulder- Greeley, CO
Fargo- Moorhead, ND- MN
Salt Lake City- Ogden, UT
Sioux Falls, SD

Region IX

Bakersfield, CA
Fresno, CA
Honolulu, HI
Las Vegas, NV
Los Angeles- Riverside- Orange County, CA
Phoenix- Mesa, AZ
Sacramento- Yolo, CA
San Diego, CA
San Francisco- Oakland- San Jose, CA
Stockton- Lodi, CA
Tucson, AZ

Region X

Anchorage, AK
Boise, ID
Portland- Salem, OR- WA
Seattle- Tacoma- Bremerton, WA

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Appendix B

Survey Instrument

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I. Introduction

[As the CATI system queues up and dials the phone number, the interviewer's screen will indicate the needed gender of the respondent. The CATI system is programmed to track respondent gender for completed interviews and to specify the needed gender for each subsequent interview. Gender designation is essential to ensuring representative proportions of males and females. Research has demonstrated females tend to answer phone calls disproportionately.]

[Upon contacting the potential respondent, the interviewer will say the following.]

Hello, I am _____ calling from Macro International. We are conducting a brief survey for the United States Environmental Protection Agency, also known as the EPA. Is someone available in your household to complete this survey 18 of age or older and also [indicate needed gender]? [IF NECESSARY: The survey will take only 12 minutes.]

[If they say they are eligible and will take the survey, then go to Part 1. If they say they are eligible but do not want to take the survey, thank and terminate. If they say someone else is eligible then go to introduction Part 2]

Part 1

Thank you for participating in this survey. This information will help EPA and other federal agencies that are working with communities to give citizens the kinds of information they want. Your answers and comments are confidential and used only in summary form together with other people's opinions.

Q.A **Have you participated in an EPA survey in the last six months?**

1.	Yes	[THANK AND TERMINATE]
2.	No	[GO TO SECTION II]
3.	Do not know	[THANK AND TERMINATE]

Part 2

Q.B **Are they available now?**

1.	Yes	[If they do not volunteer to check, ask them to do so. If they return and say the eligible respondent is not available then go to Q2] If the eligible respondent returns, then go to Part 3]
2.	No	[SCHEDULE CALLBACK. IF REFUSE CALLBACK - TERMINATE]
3.	Do not know	[THANK AND TERMINATE]

Part 3

Hello, I am _____ calling from Macro International. We are conducting a brief survey for the United States Environmental Protection Agency, also known as the EPA. EPA is interested in your opinions and concerns about the environment and other issues in the [PLACE NAME OF MSA HERE] area. This information will help EPA and other federal agencies that work with communities to give their citizens the kinds of information they want. Your answers and comments are confidential and used only in summary form together with other people's opinions. [IF NECESSARY: The survey will take only 12 minutes.]

Q.C First, I would just like to confirm - Are you at least 18 years old?

1.	Yes	
2.	No	[TERMINATE]
3.	Do Not Know/refused	[TERMINATE]

Q.D Have you participated in an EPA survey in the last six months?

1.	Yes	[THANK AND TERMINATE]
2.	No	[GO TO SECTION II]
3.	Do nor know	[THANK AND TERMINATE]

II. Local Urban Environmental and Non-environmental Issues

Q.1 First, I am going to read you a list of different issues that may or may not occur in the [PLACE NAME OF MSA HERE] area.

Please tell me how important is each of these issues in the [PLACE NAME OF MSA HERE] area. Please use a scale of 1 to IO. with 10 being "extremely important" and 1 being "not important at all".

[All of the issues, environmental and non-environmental, will be presented together in a random order. The CATI system will re-randomize the list for each respondent.]

AIR

Issue:	Rating										
Air pollution from cars	1	2	3	4	5	6	7	8	9	10	DK
Air pollution from businesses or industrial sites	1	2	3	4	5	6	7	8	9	10	DK
Air pollution from burning leaves	1	2	3	4	5	6	7	8	9	10	DK
Ozone alerts in the community	1	2	3	4	5	6	7	8	9	10	DK

WASTE

Issue:	Rating										
The adequacy of landfills	1	2	3	4	5	6	7	8	9	10	DK
Location of landfills	1	2	3	4	5	6	7	8	9	10	DK
Hazardous wastedumping in the local area	1	2	3	4	5	6	7	8	g	10	DK
Use of potentially harmful pesticides	1	2	3	4	5	6	7	8	9	10	DK
Disposal of animal waste	1	2	3	4	5	6	7	8	9	10	DK

WATER

Issue:	Rating										
. The quality of drinking water from public water systems	1	2	3	4	5	6	7	8	9	10	DK
. Protection of ground water and wells	1	2	3	4	5	6	7	8	9	10	DK
. Depletion of the water table	1	2	3	4	5	6	7	8	9	10	DK
. Pollution of streams, rivers, lakes, and oceans in the urban area	1	2	3	4	5	6	7	8	9	10	DK
. Adequate long-term supply of drinking water	1	2	3	4	5	6	7	8	9	10	DK
. Adequacy of sewage treatment facilities	1	2	3	4	5	6	7	8	9	10	DK

Other Issues

[These issues will be asked after the environmental and non-environmental questions. They will not be randomized.]

Q. la Can you think of any other issues in the JPLACE NAME OF MSA HERE] area?
RECORD _____

Please tell me how important is this issue in the [PLACE NAME OF MSA HERE] area. Please use a scale of 1 to IO. with 10 being "extremely important" and 1 being "not important at all".
1 2 3 4 5 6 7 8 9 10 DK

After survey is completed, need to specify whether the issue is environmental or not.

Q.1b Can you think of any other issue in the [PLACE NAME OF MSA HERE] area?
RECORD _____

Please tell me how important is this issue in the JPLACE NAME OF MSA HERE] area Please use a scale of 1 to 10, with 10 being "extremely important" and 1 being "not important at all".
1 2 3 4 5 6 7 8 9 10 DK

After survey is completed, need to specify whether the issue is environmental or not.

Q.2. Now I would like to ask about the ENVIRONMENTAL ISSUES you rated "Important". Please tell me whether you think that these environmental issues have gotten better, worse or stayed about the same in the last five years in the [PLACE NAME OF MSA HERE] area.

[The CATI system will recall all environmental issues rated 6 or higher and use in the following routine]

Q2a For [INSERT FIRST ISSUE], would you say it has gotten better, worse or stayed the same in the last five years in the [PLACE NAME OF MSA HERE] area?

1. **Better**
2. **Worse**
3. **Same**
4. DK/Refused

Q2b. For [INSERT FIRST ISSUE], is this an issue in which you have been actively involved, for example, written letters, attended public meetings, joined an advocacy group?

1. **Yes**
2. **No**
3. **Do not know/Refused**

Q3a. **What about [INSERT NEXT ISSUE] would you say it has gotten better, worse or stayed the same in the last five years in the [PLACE NAME OF MSA HERE] area?**

1. **Better**
2. **Worse**
3. **Same**
4. DK/Refused

Q3b. **For [INSERT NEXT ISSUE], is this an issue in which you have been actively involved, for example, written letters, attended public meetings, joined an advocacy group?**

1. **Yes**
2. **NO**
3. **Do not know/Refused**

[The CATI system will continue until all issues are rated.]

Q4a. **Have you or anyone else in your family been negatively affected by these environmental issues. By negatively affected, I mean negative influence on health, things like allergies or breathing problems.**

1.	**Yes**	**[CONTINUE TO Q.5]**
2.	**No**	**[SKIP TO NEXT SECTION]**
3.	**Do not know/Refused**	**[SKIP TO NEXT SECTION]**

Q4b. **Who in your family has been negatively affected?**

[SELECT ALL THAT APPLY]

1. **Self**
2. **Children**
3. **Spouse or significant other**
4. **Elderly family members**
5. **Pets**
6. **Other**
7. **Do not know/Refused**

III. Communications Issues

Q5. **From what sources do you usually hear or learn about urban environmental issues and conditions in the [PLACE NAME OF MSA HERE] area?**

[DO NOT READ LIST. ENTER ALL RESPONSES.]

Q5a. **IF ONLY "TV" MENTIONED IN Q.1, ASK: From sources other than TV, do you usually hear or learn about urban environmental issues and conditions in the [PLACE NAME OF MSA HERE] area?**

Q.6. **If you needed particular information on urban environmental issues and conditions in the JPLACE NAME OF MSA HERE] area, where would you be likely to look for it?**

Q.6a. **IF ONLY "TV" MENTIONED IN 0.2, ASK: Where else, besides Tv, would you be likely to look for information on urban environmental issues and conditions in the [PLACE NAME OF MSA HERE] area?**

[DO NOT READ LIST. ENTER ALL RESPONSES.]

	Q5/5a	Q6/6a
Billboards	1	1
Bus-side ads	2	2
Posters	3	3
Personal experience	4	4
Internet	5	5
Kids	6	6
Leaflets	7	7
Library	8	8
Personal observation	9	9
Word-of mouth	IO	10
Media		
Television	11	11
Radio	12	12
Newspapers	13	13
Magazines	14	14
School	15	15
Hotlines1800 numbers	16	16
Organizations		
Local Schools	17	17
Universities/Community Colleges	18	18
Local government	19	19
State government	20	20
Federal government	21	21
Environmental groups	22	22
Other [RECORD]	23	23

Q.7 Now I would like you to rate the following sources on how well they provide you with information about environmental conditions in the [PLACE NAME OF MSA HERE1 area. Please rate these Sources using a scale from 1 to 10, with 10 being EXCELLENT and 1 being VERY POOR.

Lets start with [READ EACH. CIRCLE APPROPRIATE RATING]

[The CATI system will randomize the list for each respondent.]

Issue:	Rating										
1. Television	1	2	3	4	5	6	7	8	9	10	DK
2. Radio	1	2	3	4	5	6	7	8	9	10	DK
3. Newspaper	1	2	3	4	5	6	7	8	9	10	DK
4. Federal government	1	2	3	4	5	6	7	8	9	10	DK
5. State government	1	2	3	4	5	6	7	8	9	10	DK
6. Local government	1	2	3	4	5	6	7	8	9	10	DK
7. Environmental groups	1	2	3	4	5	6	7	8	9	10	DK
8. Schools, colleges or universities.	1	2	3	4	5	6	7	8	9	10	DK

Q.8 The next few questions are about your household and the environment. When we use the word "environment" we mean the air you breathe, the water you drink, or other aspects of the natural environment in the area where you live and work, including the climate or wild animals. When you think about the environment this way, have you or anyone else in your household age 18 and older:

	Yes	No	Don't Know	Refuse
1. Requested environmental information in person, in writing, or by phone?	1	2	7	8
2. Subscribed to an environmental publication such as a magazine?	1	2	7	8
3. Read a book or brochure or done a library search about an environmental issue?	1	2	7	8
4. Joined an environmental group to get information?	1	2	7	8
Searched the World Wide Web or Internet for environmental information?	1	2	7	8
Attended a public meeting to get information about an environmental issue?	1	2	7	8

Q9. **Do you currently have access to the World Wide Web or Internet?**

Yes	[ASK Q.6]
No	[SKIP TO NEXT SECTION]
Do not know	[SKIP TO NEXT SECTION]

Q10. **Do you have World Wide Web or Internet access at . ..? [READ LIST. ENTER RESPONSES]**

[READ ALL]	YES	NO	DK
Home	1	2	DK
Work	1	2	DK
A local library	1	2	DK
A local school	1	2	DK
Some other place	1	2	DK

RECORD OTHER _____

Q11. **When was the last time you used the World Wide Web or Internet? [READ LIST UNTIL FIRST ?YES? RESPONSE]**

[READ]	YES	NO	DK
In the last few days	1	2	DK
In the last week	1	2	DK
In the last month	1	2	DK
In the last year	1	2	DK
Longer than a year	1	2	DK

IV. DEMOGRAPHICS

These last few questions are just to help us classify respondents for analytical purposes.

Q12. What best describes the type of neighborhood you live in? [READ LIST]

1. Urban or city
2. Suburbs
3 Rural
4 Other [RECORD]
5. DK/Refused [DO NOT READ]

Q13. Is your home a [READ LIST]?

1. Single-Family Detached
2. Duplex, triplex or townhouse/ rowhouse
3. Apartment or condominium
4. Trailer or mobile home
5. Other [RECORD]
6. DK/Refused [DO NOT READ]

Q14. Do you own or rent your residence?

1. Own
2. Rent
3. Other [RECORD]
4 DNK/Refused [DO NOT READ]

Q15. How long have you lived in your residence?

_____ YRS

Q16. How long have you lived in the [PLACE NAME OF MSA HERE] area?

_____ YRS

Q17. What is your age? (RECORD ANSWER) [IF NECESSARY, ASK: Is it between ___ (READ LIST)]

1. 18-24
2. 25-29
3. 30-34
4. 35-39
5. 4044
6. 45-49
7. 50-54
8. 55-59
9. 60-64
10. 65-69
11. 70-74
12. 75 or older
13. Refused [DO NOT READ]

Q18. Which of the following best describes your household?

[READ LIST UNTIL FIRST YES RESPONSE.]

1. Individual living alone
2. Single head of household with children living at home
3. Couple with children living at home
4. Couple with children not living at home
5. Couple without children
6. Single or couple living with other adults
7. Other [RECORD].
8. Refused [DO NOT READ]

Q19 What is your zip code?

_____

Q20. Do you consider yourself to be Hispanic?

1. Yes
2. No
3. DK or refused [DO NOT READ]

Q21. For classification purposes, to which of the following categories do you belong? (READ LIST)

1. American Indian or Alaskan Native
2. Asian
3 Black or African American
4 Native Hawaiian or Other Pacific Islander
5. White
6. Other
7. DK or refused [DO NOT READ]

Q22 **What language is <u>most often</u> spoken in your home? (RECORD ONE ANSWER)**

1.	English	
2.	Spanish	
3.	French	
4.	German	
5.	Vietnamese	
6.	Cambodian	
7.	Mandarin	
8.	Cantonese	
9.	Japanese	
10.	Korean	
11.	Arabic	
12.	Polish	
13.	Russian	
14.	Other	[RECORD]
15.	DK/Refused	[DO NOT READ]

Q23 **Please tell me which best describes your highest level of education.**

[READ LIST UNTIL FIRST YES RESPONSE.]

1.	Below high school
2.	High school but no diploma
3.	High school diploma
4.	Some college but not a bachelor's nor associate's degree
5.	Associate's degree
6.	Bachelor's degree
7.	Some graduate or professional school but no degree
8.	Graduate or professional degree
9.	Graduate or professional degree plus additional studies
10.	Other
11.	DK/Refused

Q24. Lastly, I am going to read several income categories. Please stop me when I read the category that best describes your 1997 total household income before taxes.

1	Under $10,000	
2	$10,000-$19,999	
3	$20,000-$29,999	
4	$30,000-$39,999	
5	$40,000~549,999	
6	$50,000-$59,999	
7	560,000.$69,999	
8	$70,000-$79,999	
9	$80,000-$89,999	
10	$90,000-$99,999	
11.	$100,000 and over	
12.	Refused	[DO NOT READ]

That was the last question I have for you. Thank you very much for taking the time to participate in this study.

Appendix C

National Urban Profile

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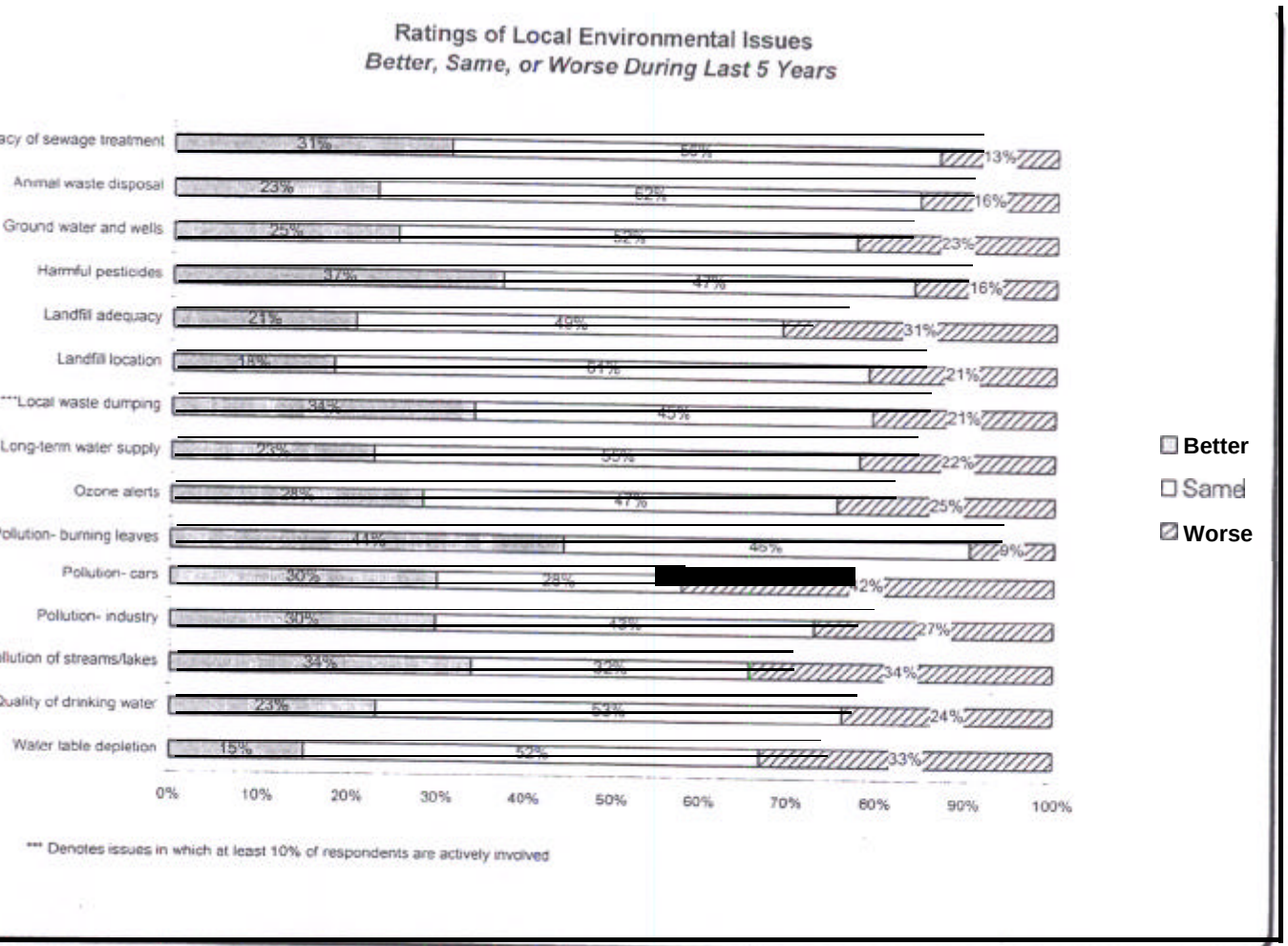
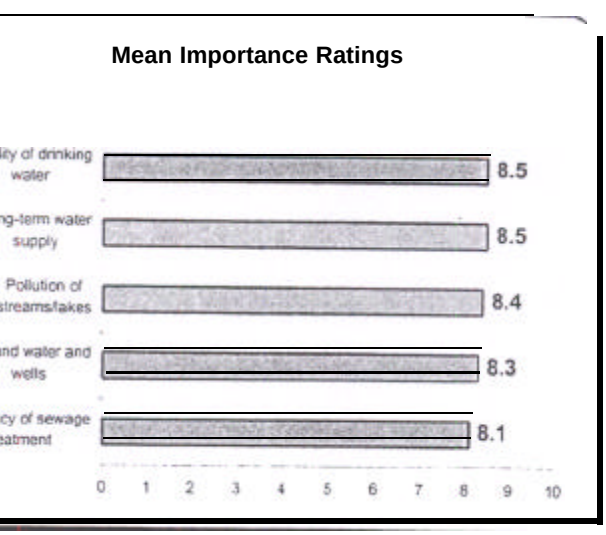
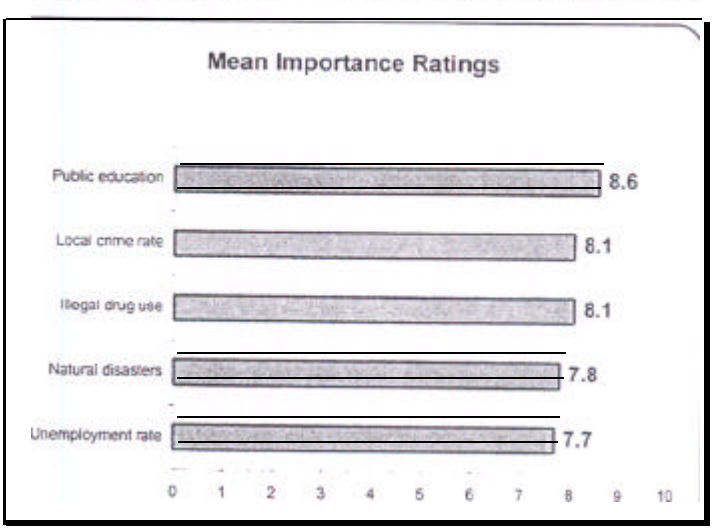


ost Important Local Environmental Issues



Most Important Local Non-Environmental Issues



ntage of respondents whose families have been negatively affected by local environmental issues **32%**

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Appendix D

Regional Profiles

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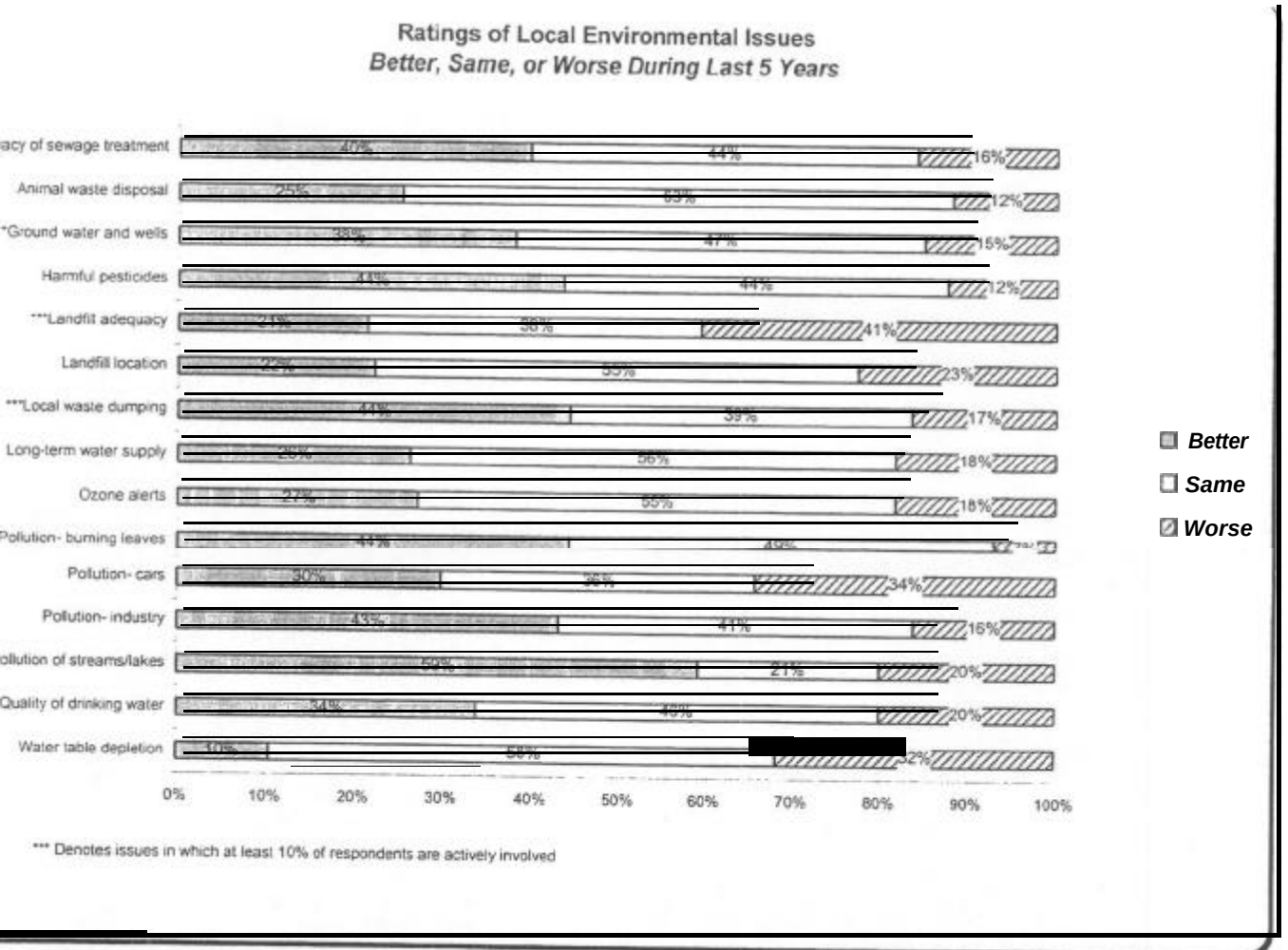
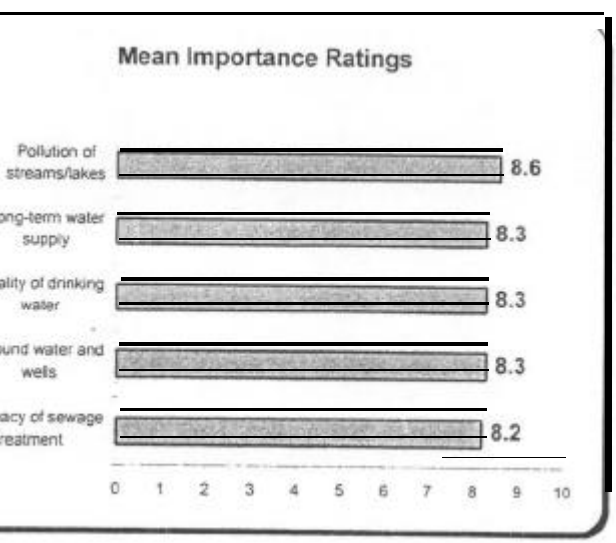
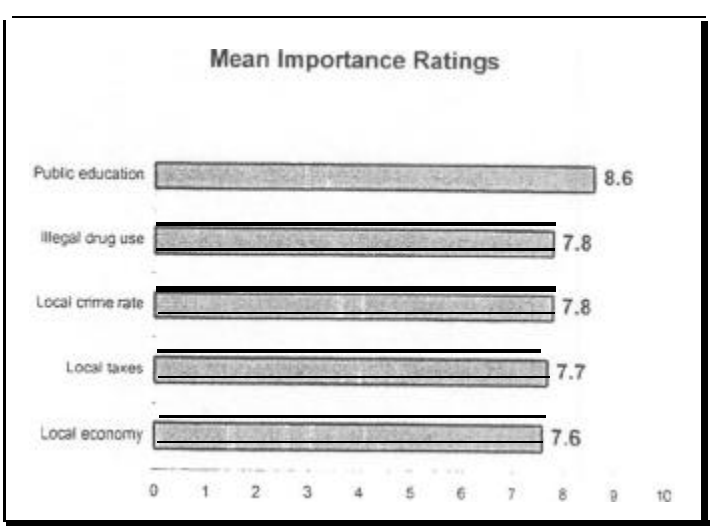
Region 1



ost Important Local Environmental Issues



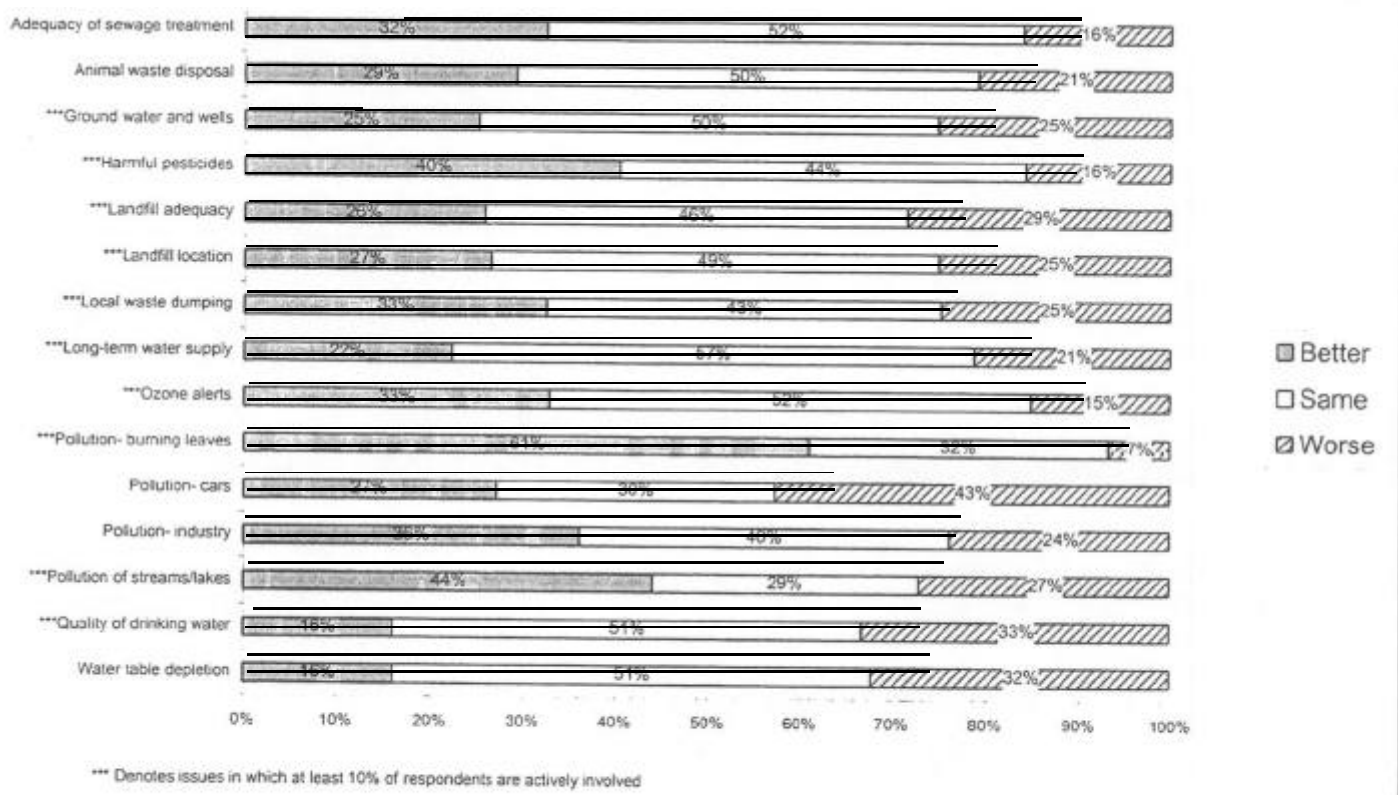
Most Important Local Non-Environmental Issues



ntage of respondents whose families have been negatively affected by local environmental issues..... 30%

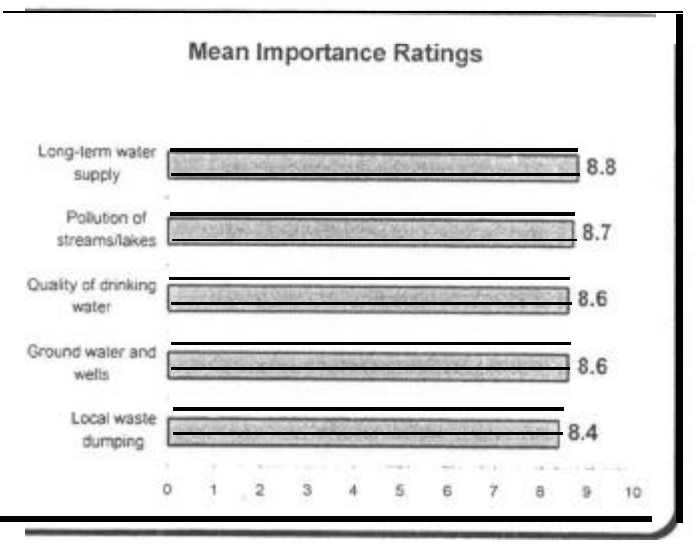
Region 2

Ratings of Local Environmental Issues
Better, Same, or Worse During Last 5 Years

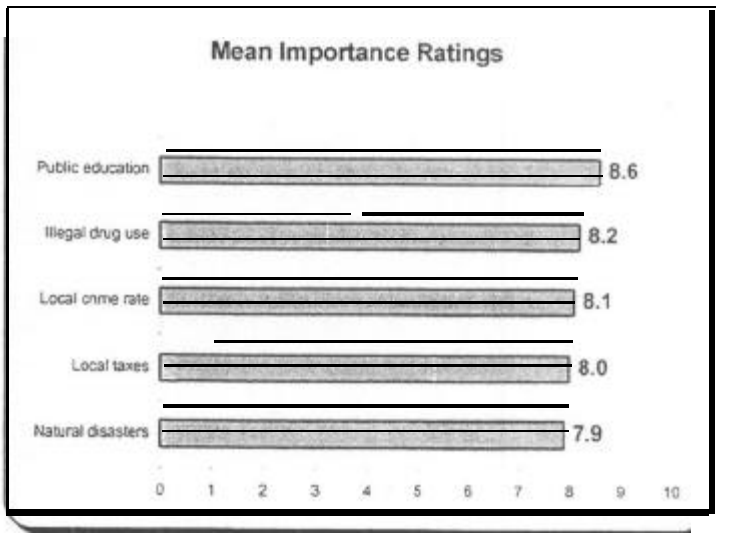


*** Denotes issues in which at least 10% of respondents are actively involved

Most Important Local Environmental Issues

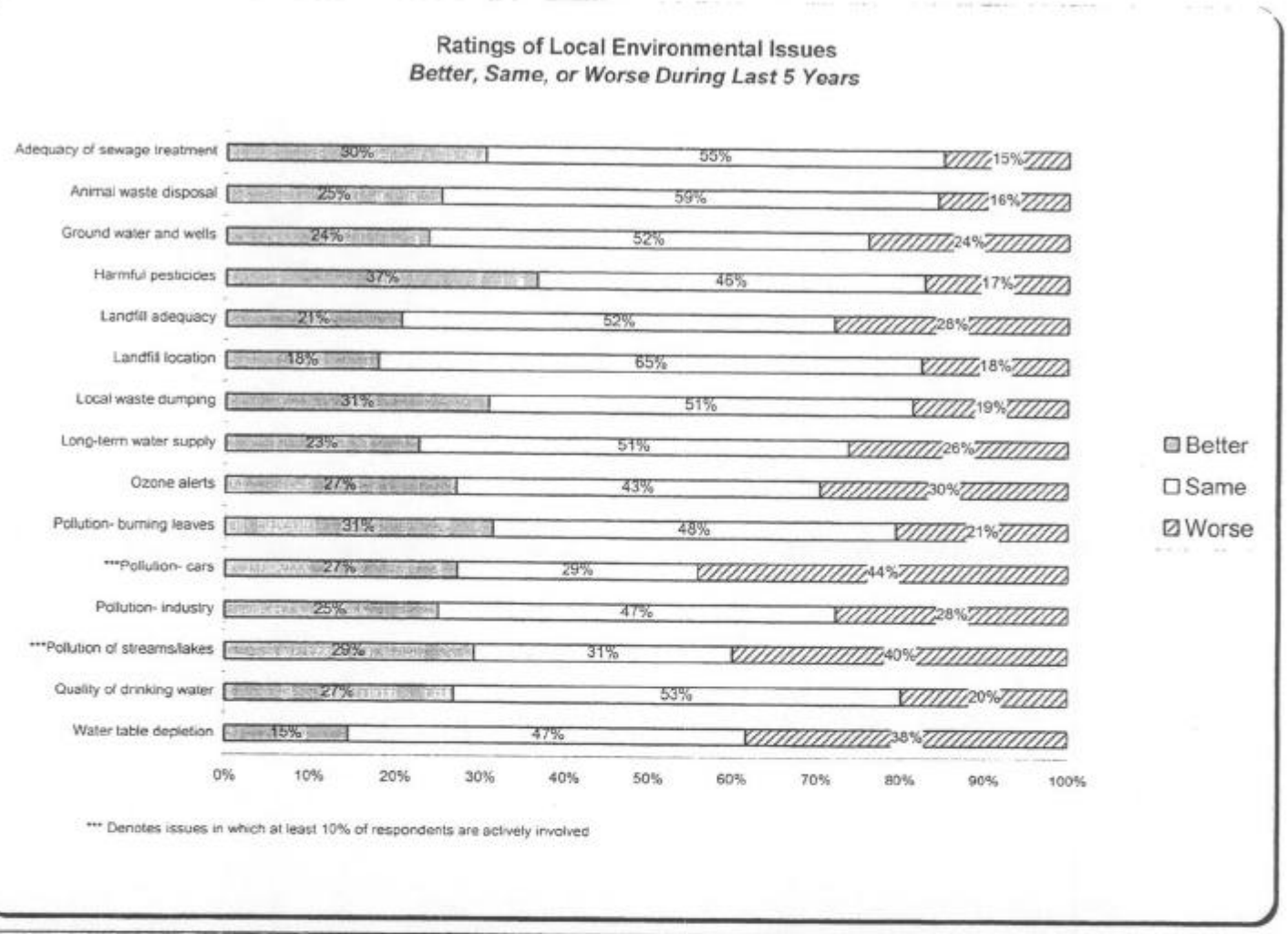


Most Important Local Non-Environmental Issues

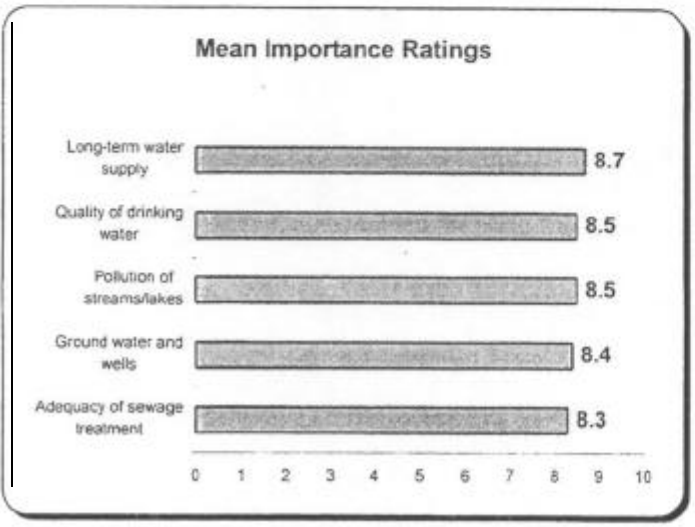


Percentage of respondents whose families have been negatively affected by local environmental issues..... *35%*

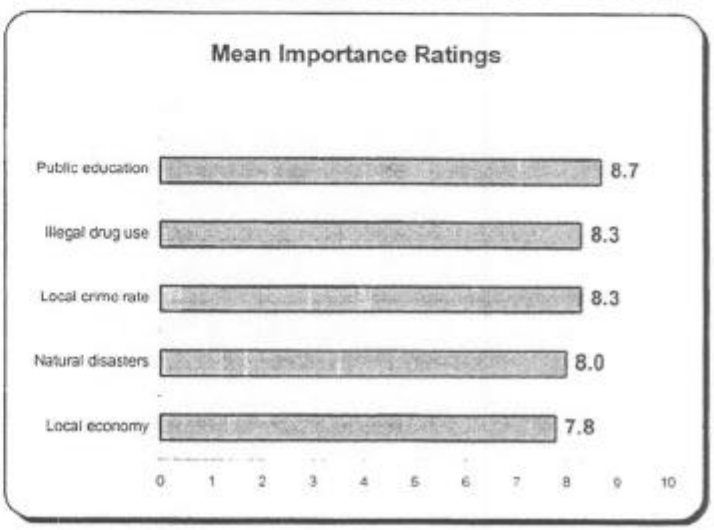
Region 4



Most Important Local Environmental Issues

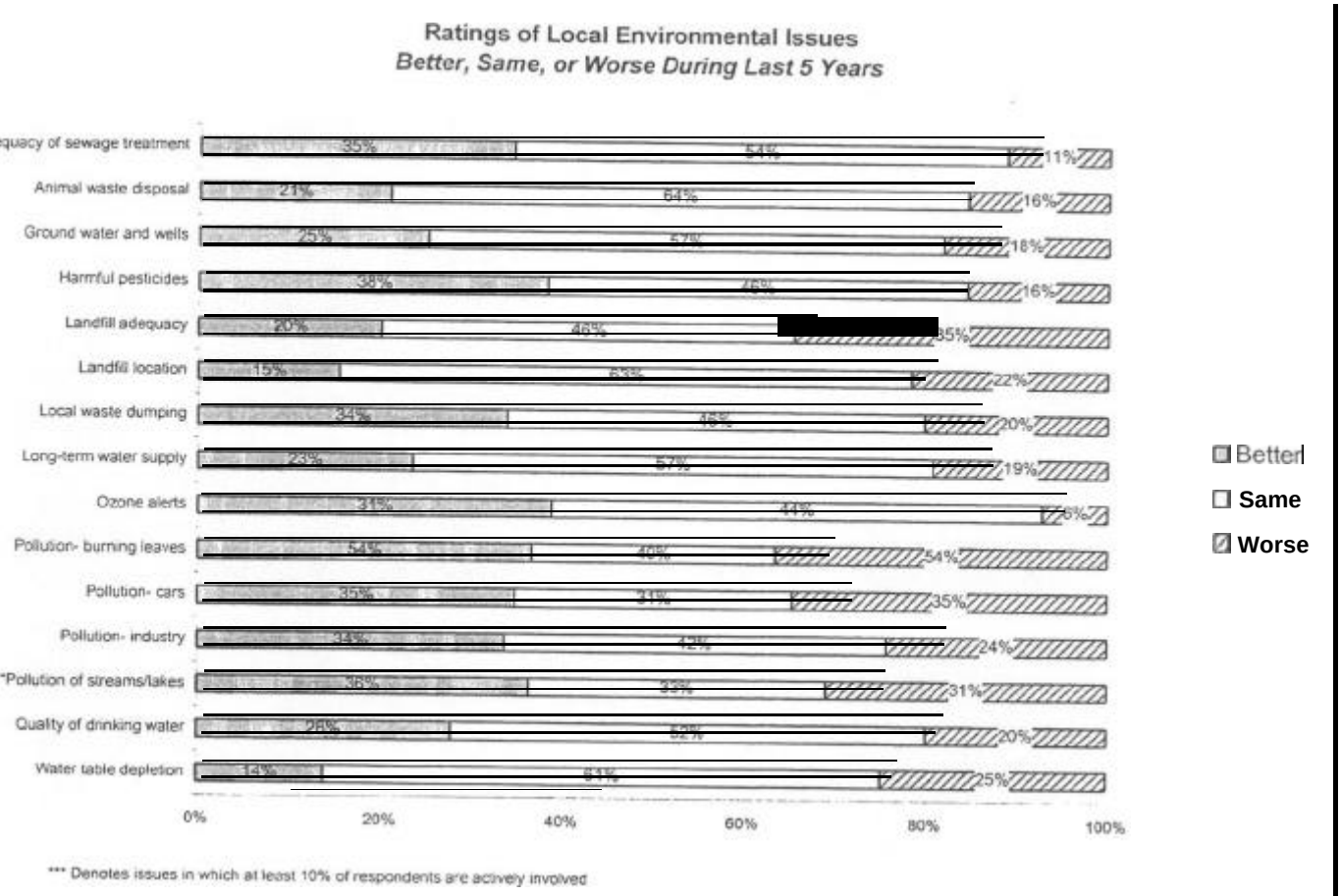


Most Important Local Non-Environmental Issues

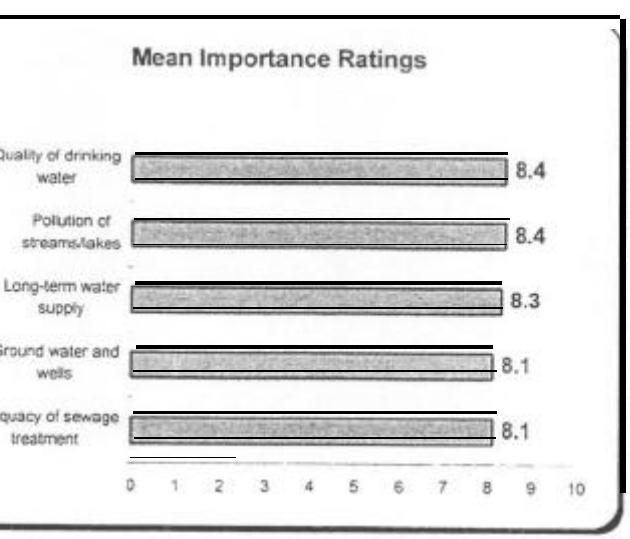


Percentage of respondents whose families have been negatively affected by local environmental issues..... **33%**

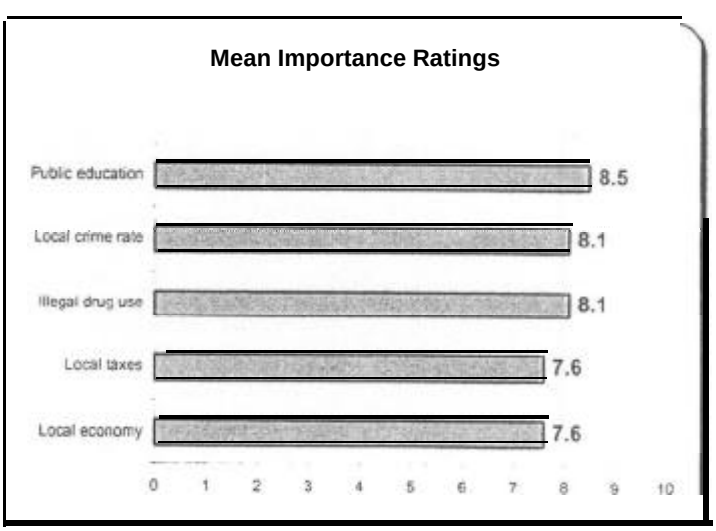
Region 5



Most Important Local Environmental Issues

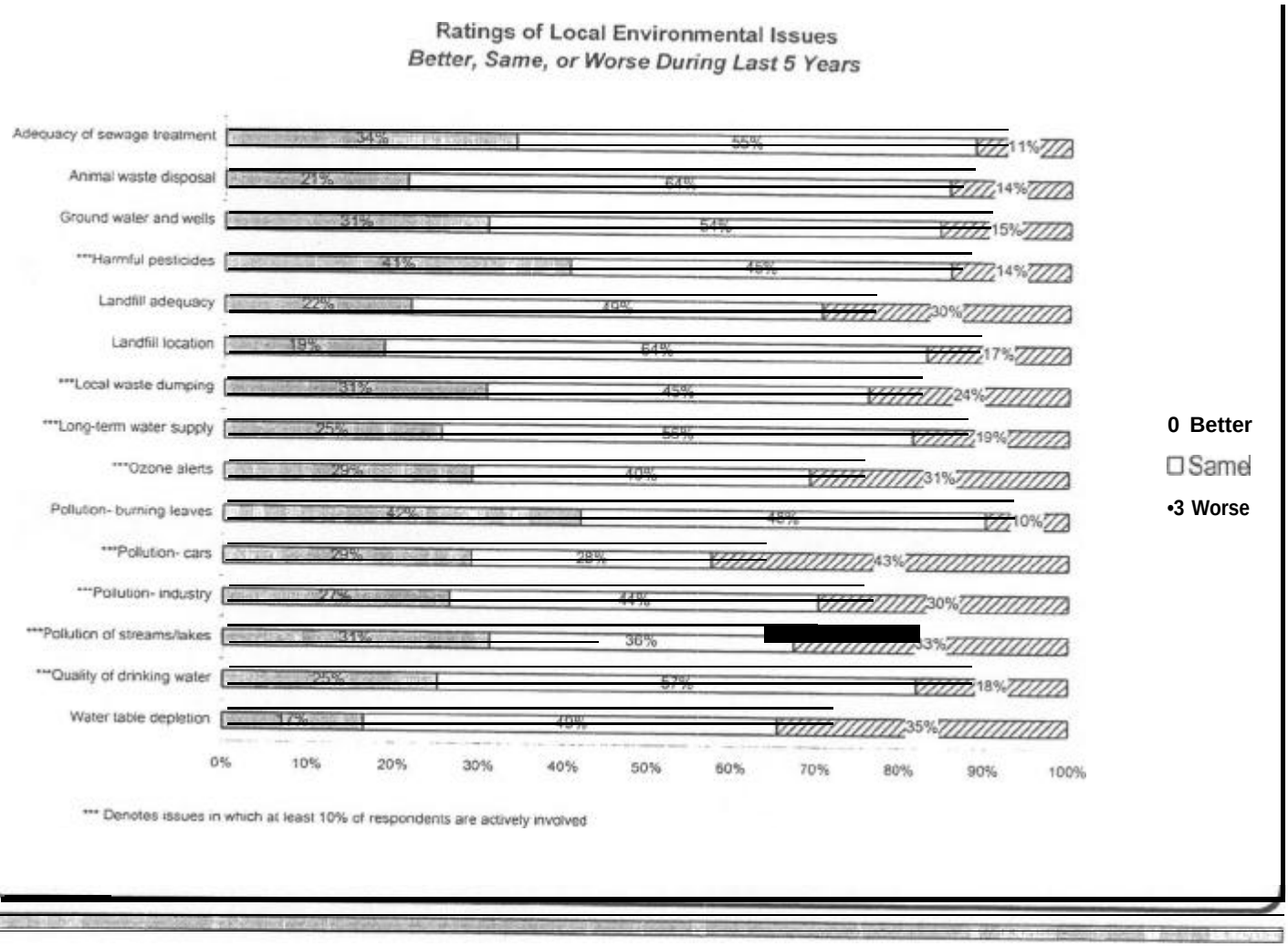


Most Important Local Non-Environmental Issues

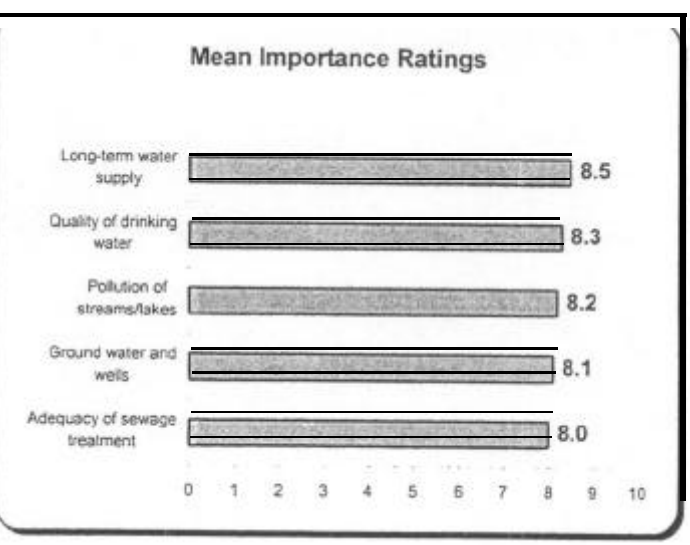


entage of respondents whose families have been negatively affected by local environmental issues.. **27%**

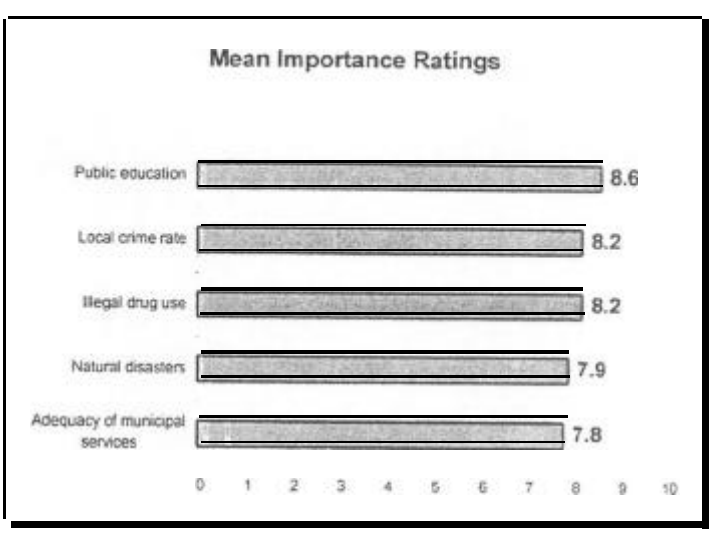
Region 6



Most Important Local Environmental Issues

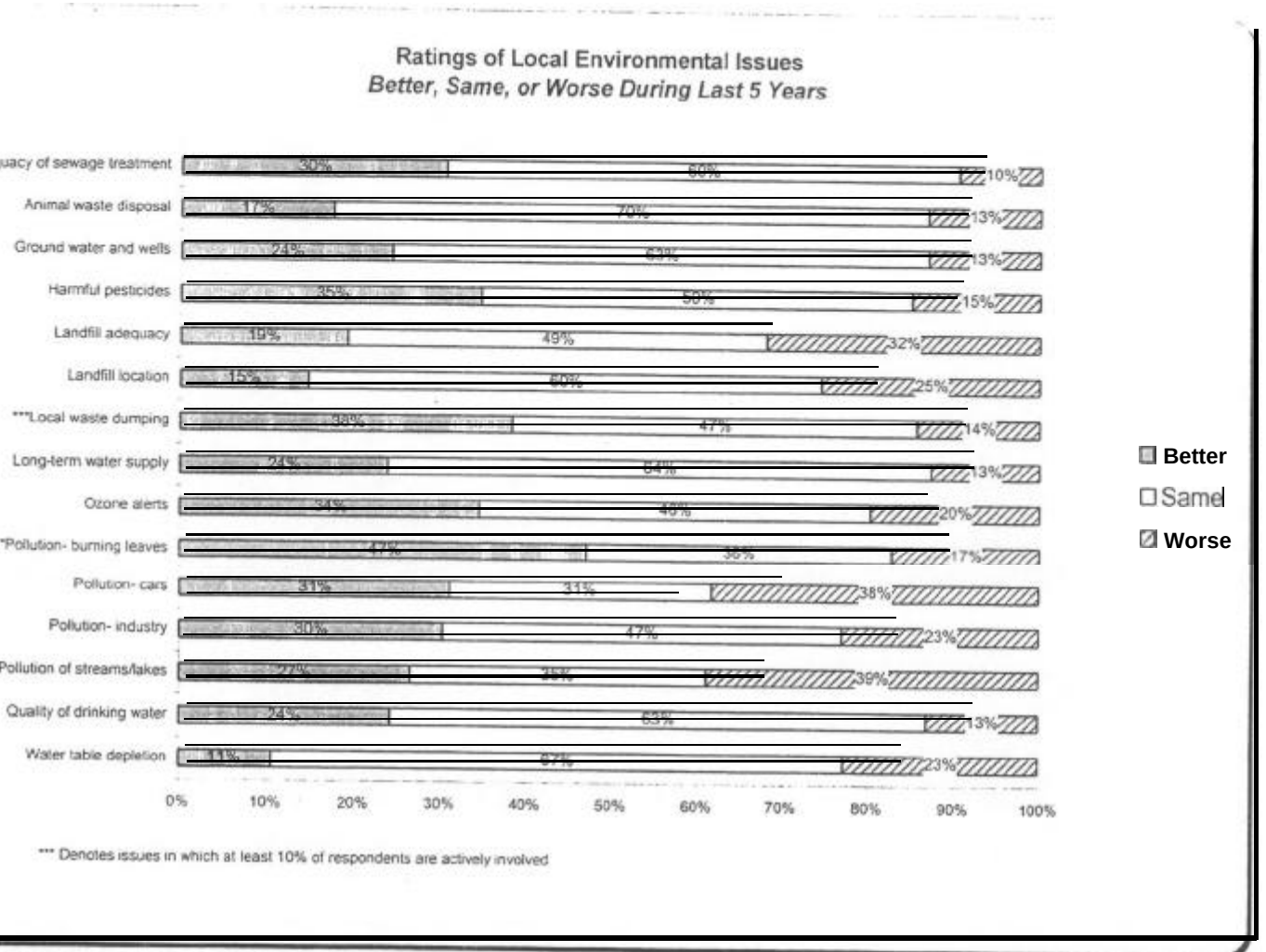


Most Important Local Non-Environmental Issues

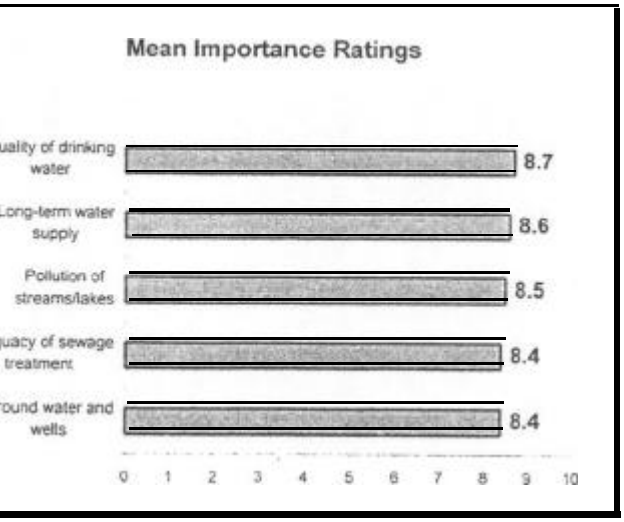


Percentage of respondents whose families have been negatively affected by local environmental issues 37%

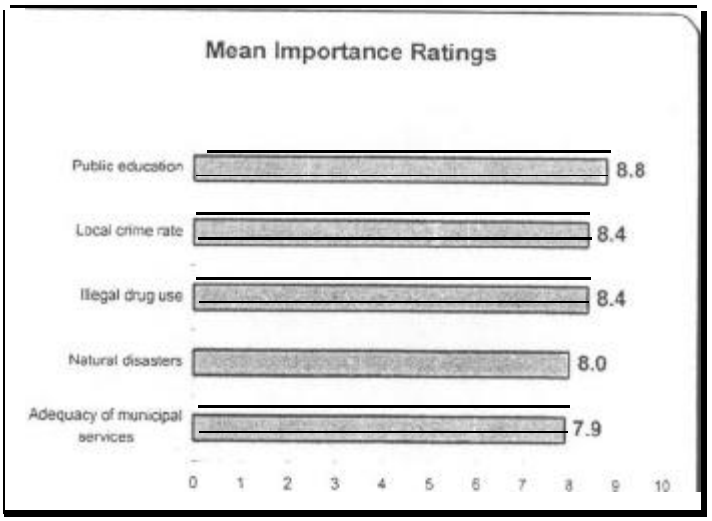
Region 7



lost Important Local Environmental Issues



Most Important Local Non-Environmental Issues



entage of respondents whose families have been negatively affected by local environmental issues... ... 26%

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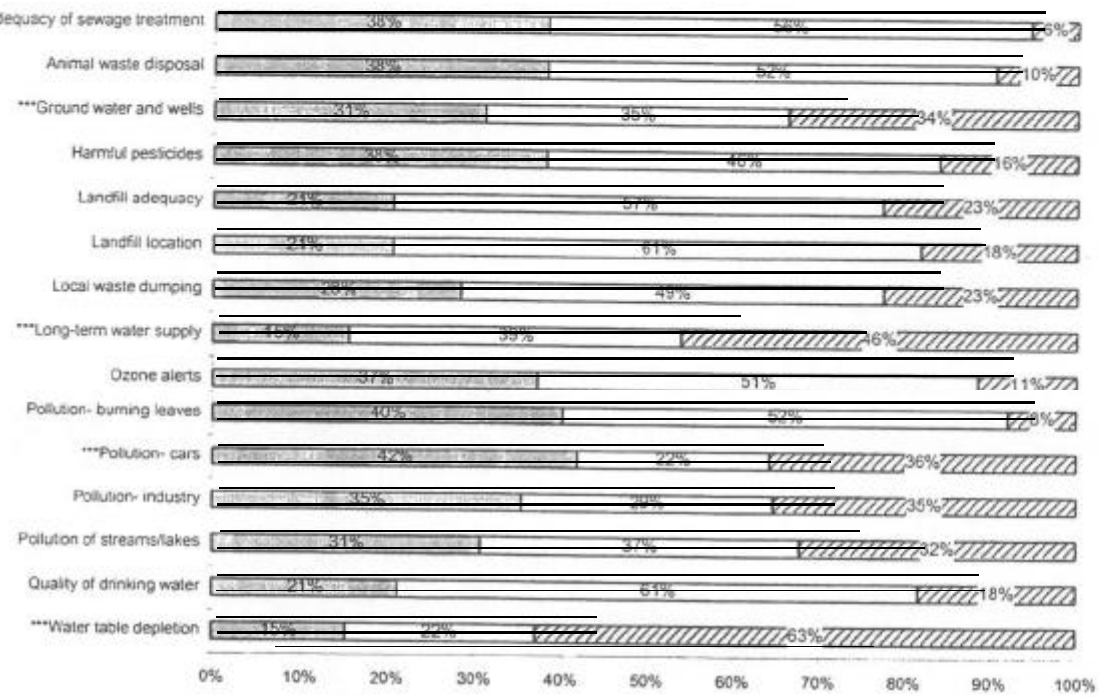
Albuquerque

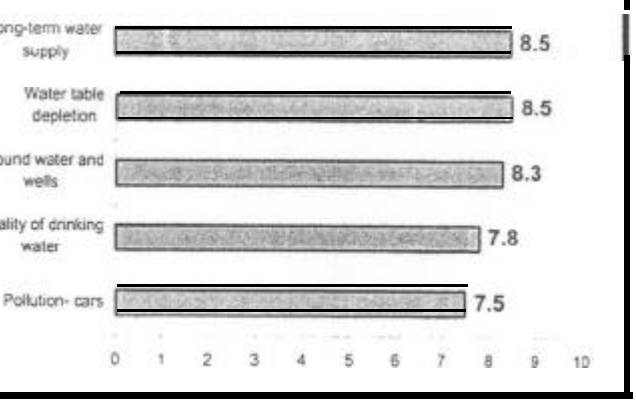
Ratings of Local Environmental Issues
Better, Same, or Worse During Last 5 Years



*** Denotes issues in which at least 10% of respondents are actively involved

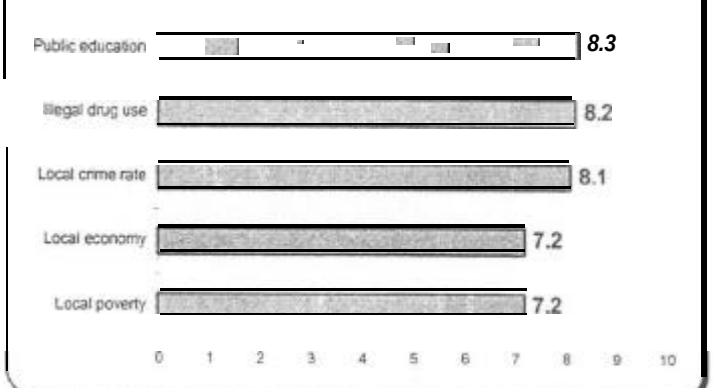
Most Important Local Environmental Issues

Mean Importance Ratings



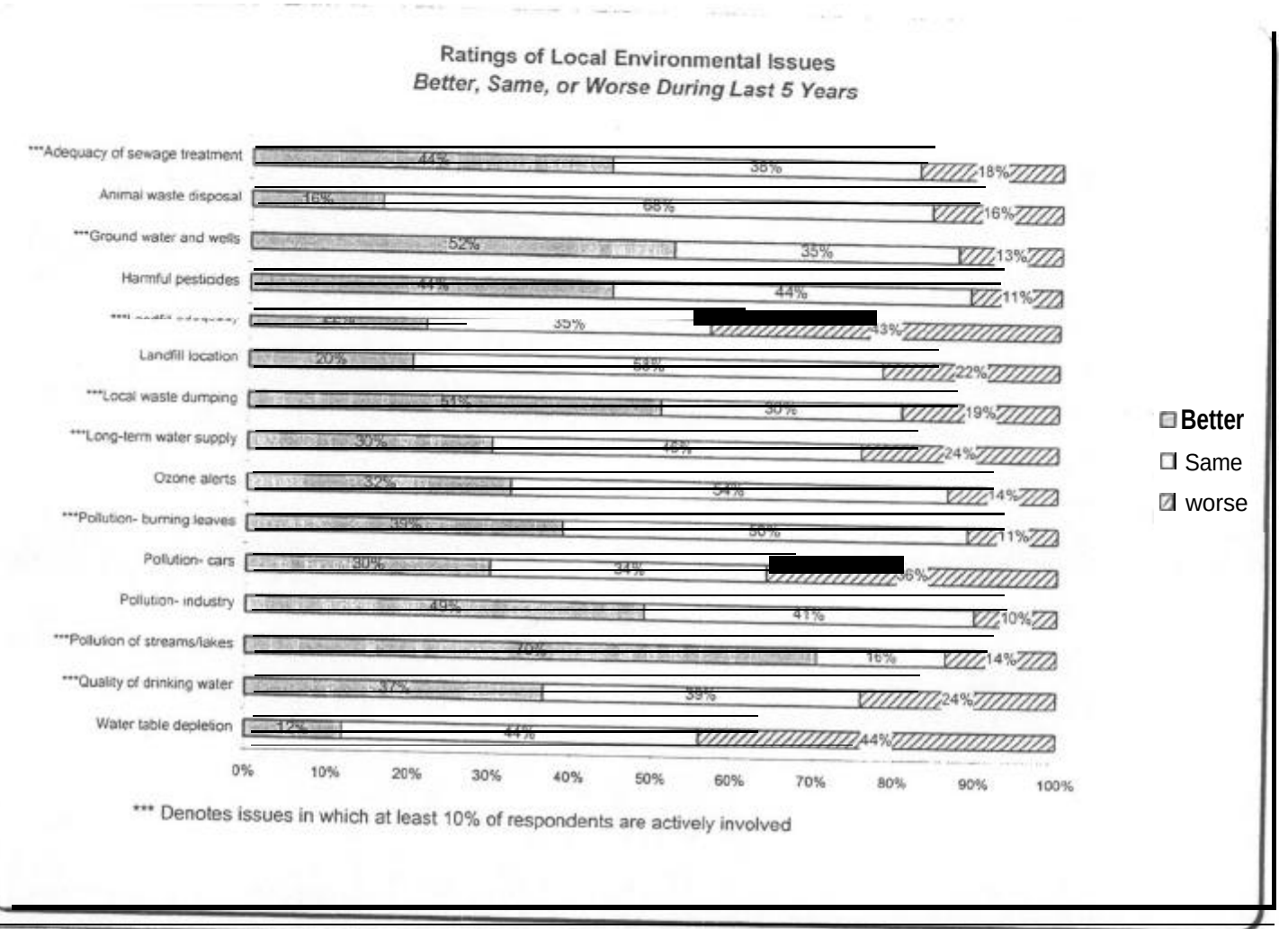
Most Important Local Non-Environmental Issues

Mean Importance Ratings

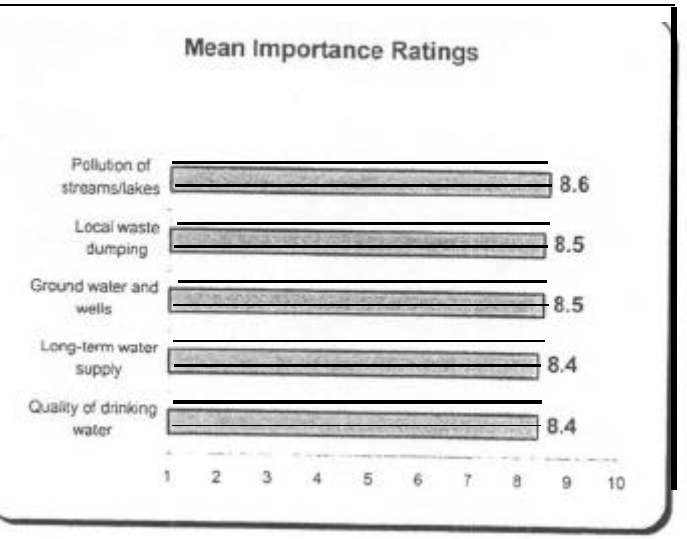


centage of respondents whose families have been negatively affected by local environmental issues... 31%

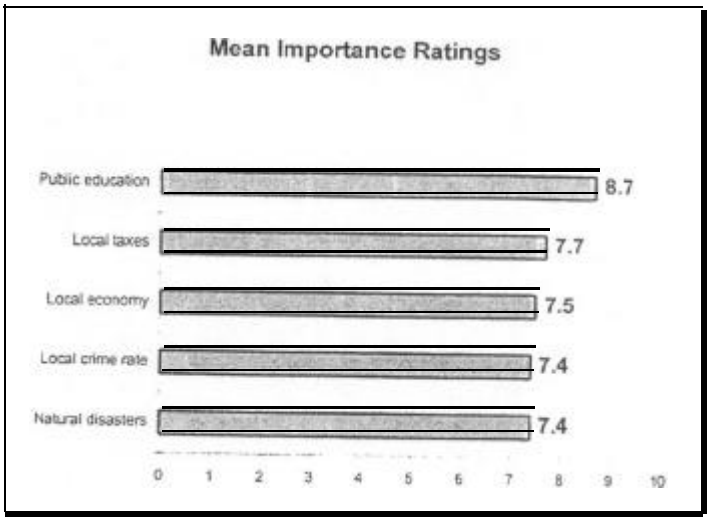
Boston



Most Important Local Environmental Issues

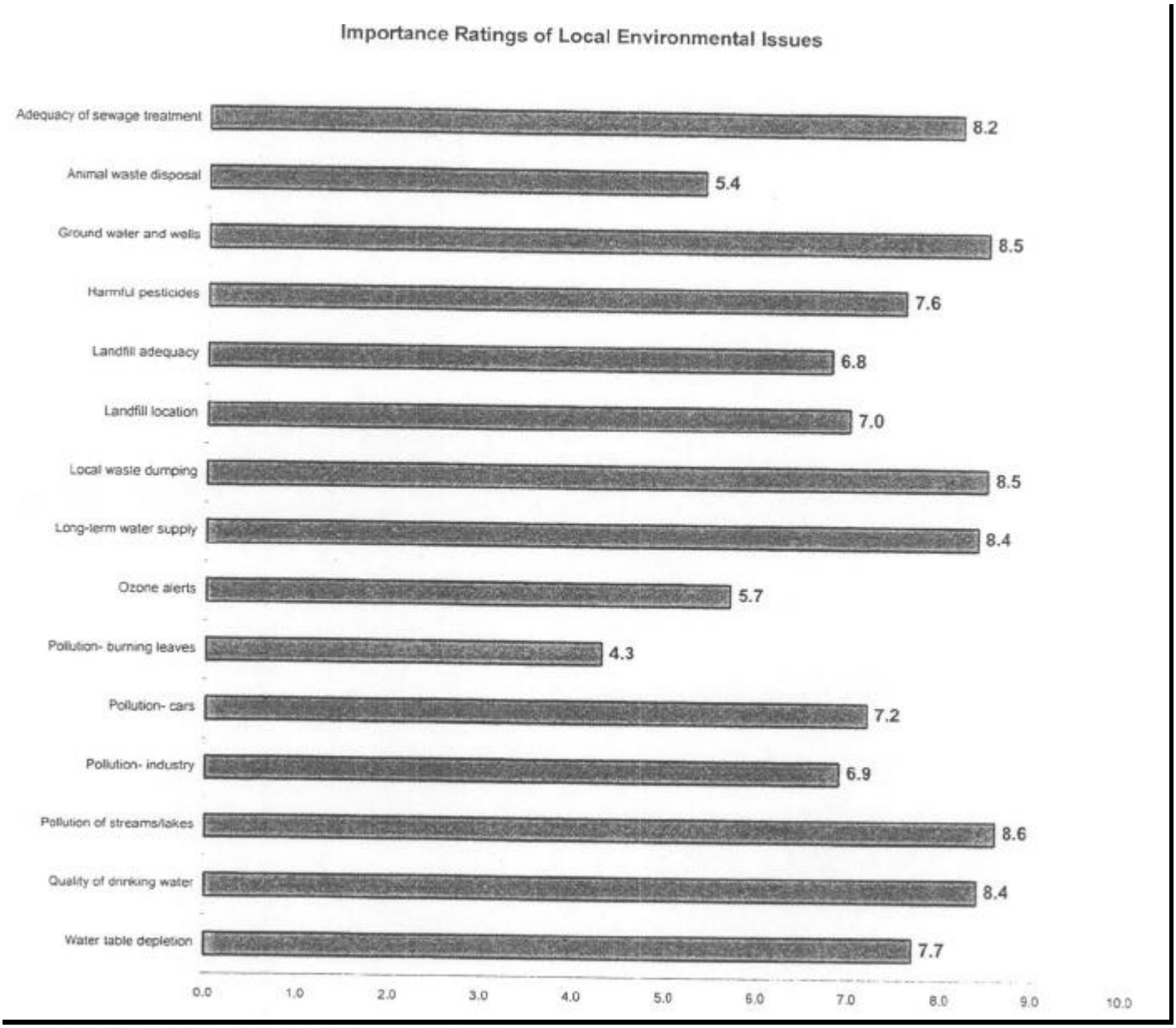


Most Important Local Non-Environmental Issues

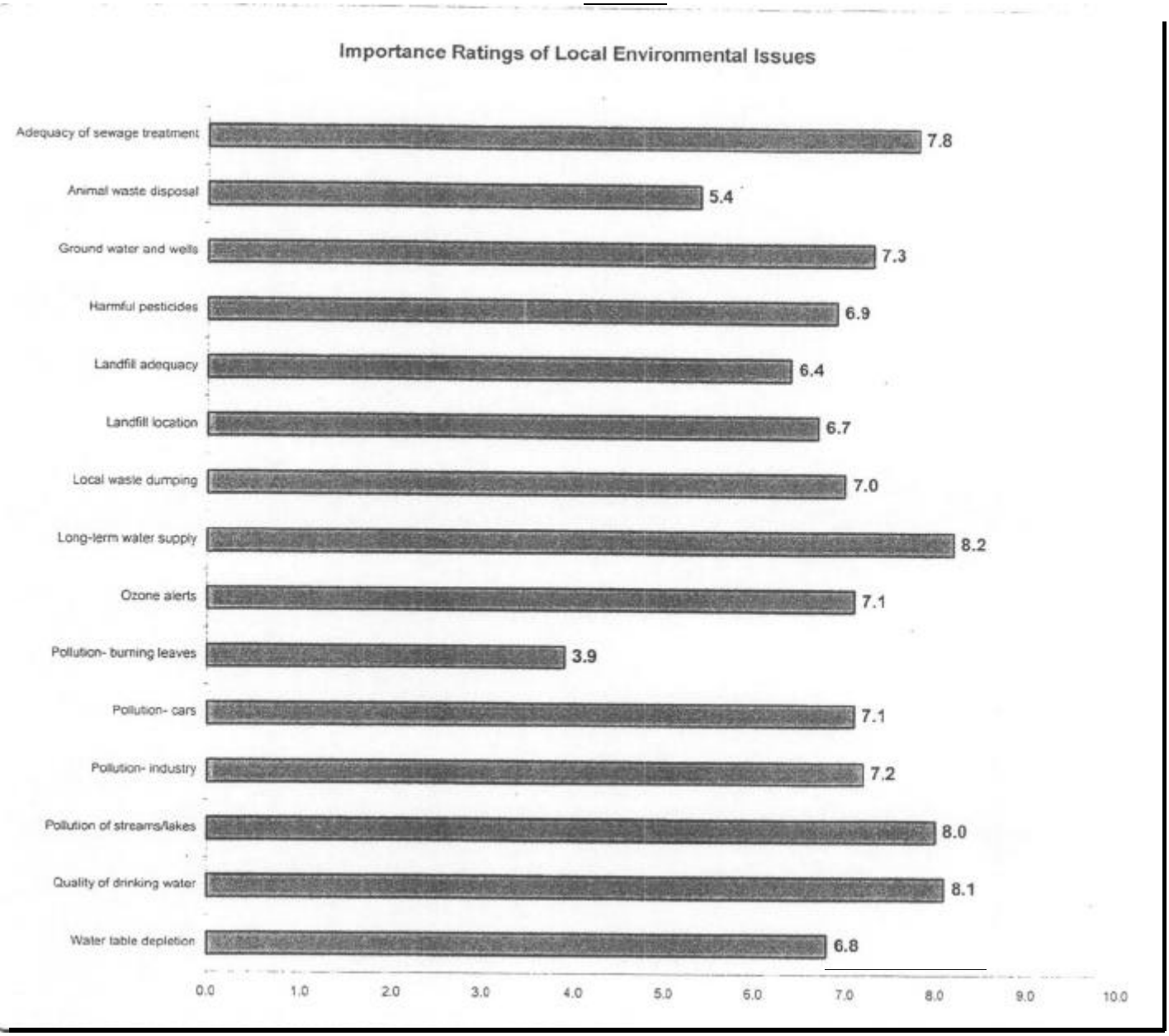


Percentage of respondents whose families have been negatively affected by local environmental issues.,.... 28%

Boston


Importance Ratings of Local Environmental Issues
Adequacy of sewage treatment
8.2
Animal waste disposal
5.4
Ground water and wells
8.5
Harmful pesticides
7.6
Landfill adequacy
6.8
Landfill location
7.0
Local waste dumping
8.5
Long-term water supply
8.4
Ozone alerts
5.7
Pollution- burning leaves
4.3
Pollution- cars
7.2
Pollution- industry
6.9
Pollution of streams/lakes
8.6
Quality of drinking water
8.4
Water table depletion
7.7
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0

Louisville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6.8
0.0
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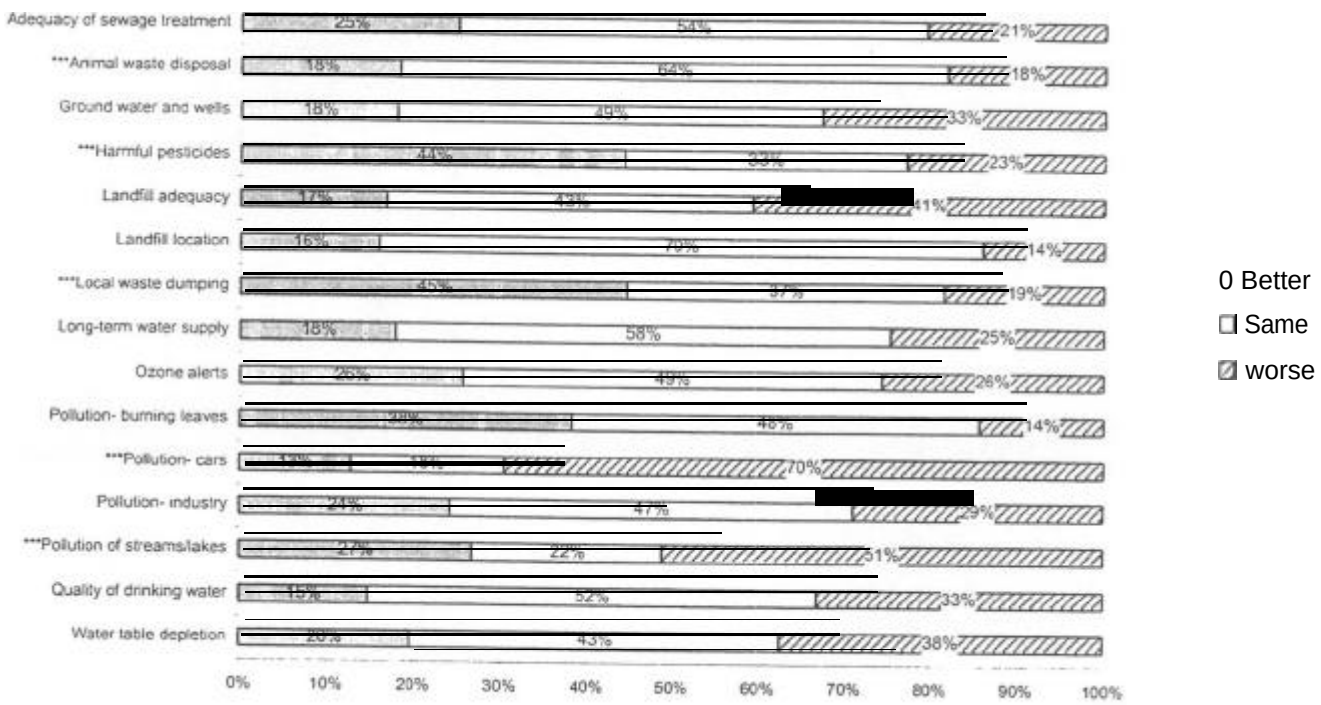
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0

Seattle/Tacoma/Bremerton

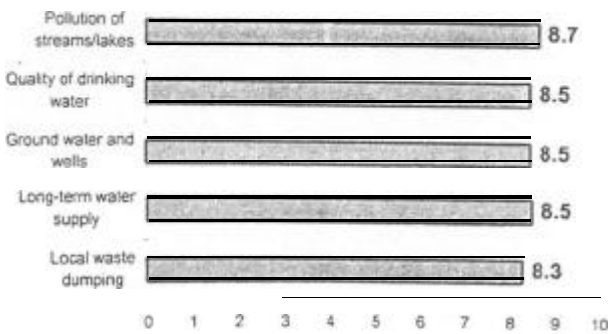
Ratings of Local Environmental Issues
Better, Same, *or* Worse *During Last 5 Years*



*** Denotes issues in which at least 10% of respondents are actively involved

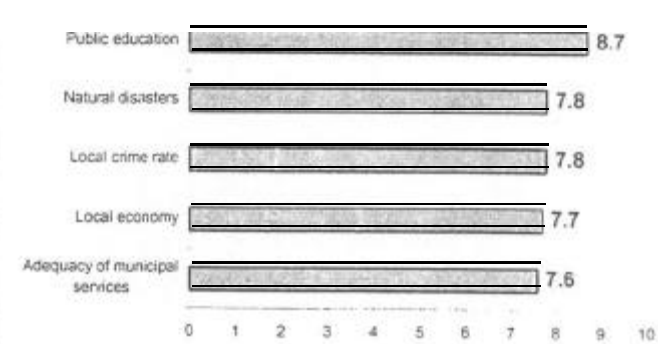
Most Important Local Environmental Issues

Mean **Importance** Ratings



Most Important Local Non-Environmental Issues

Mean Importance Ratings



Percentage of respondents whose families have been negatively affected by local environmental issues... ... 32%

Seattle/Tacoma/Bremerton

Importance Ratings of Local Environmental Issues